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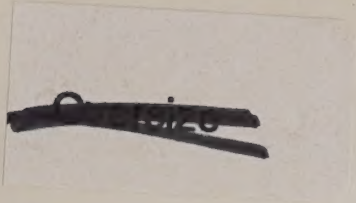
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# Annual report 1955

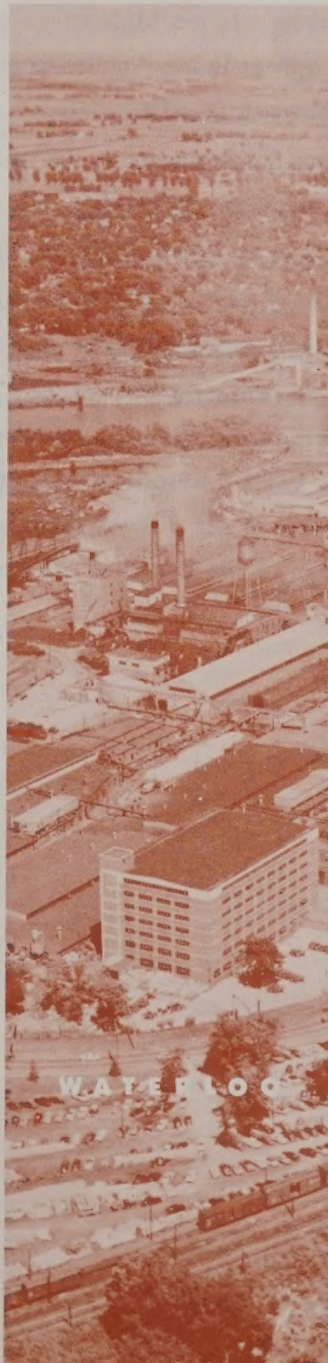
FEDERAL RESERVE BANK OF CHICAGO

growth and prosperity in

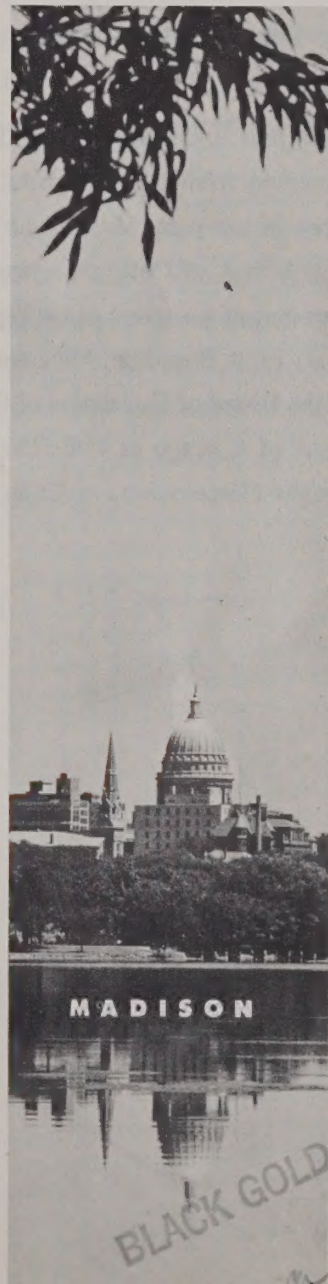
## Five midwest cities



FORT WAYNE



WATERLOO



MADISON



DECATUR

LINT





**To the Member Banks of the Seventh Federal Reserve District:**

I am pleased to submit to you the Forty-first Annual Report of the Federal Reserve Bank of Chicago, covering the operations during the year 1955. Accompanying the summary of Bank operations is an intensive review of the economic nature and potential of five representative Midwestern cities. This review is the second in a series of studies to appear in the Annual Report concerning the distinguishing characteristics of the Seventh District economy.

The year 1955 represents the last of many years during which the Bank has benefited from the thoughtful counsel and loyal service of key associates. At the close of the year, Mr. Edward E. Brown, Chairman of the Board of The First National Bank of Chicago, retired from membership in the Federal Advisory Council, terminating a service of twenty years as a member of the Council and nearly sixteen years as its President. His counsel during that time has been of invaluable assistance to the Board of Governors of the Federal Reserve System and to the Federal Reserve Bank of Chicago as well. The term of Mr. John S. Coleman, President of the Burroughs Corporation, as Chairman of the Board of Directors expired in December

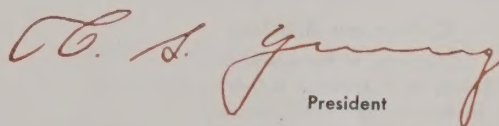


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1955. For six years Mr. Coleman has been active in the formulation of Bank policies, first as Deputy Chairman and for the last three years as Chairman. Among the senior official staff, three Vice Presidents retired during the course of the year — Messrs. Walter A. Hopkins, in charge of the Cash Department, Louis G. Meyer, in charge of Personnel, and Alfred T. Sihler, in charge of the Government Bond Department. The year 1955 also witnessed the untimely demise of Miss Kathryn E. Lee, Assistant Cashier and my invaluable administrative assistant. I wish to take this opportunity to express my gratitude for the many contributions over the years by these valued members of the Bank family.

I wish also to give recognition to the continuing cooperation and counsel which the Bank has received from you its members. Such guidance and assistance have helped us to discharge more effectively our responsibilities to the financial community, business and the general public. On behalf of the Directors, Officers and Staff, I extend our sincere appreciation.

Very truly yours,

  
President

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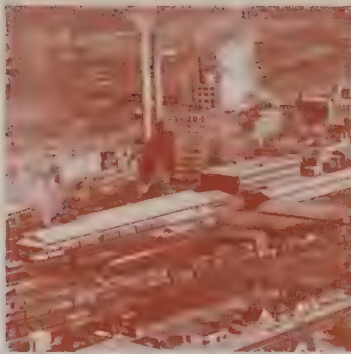
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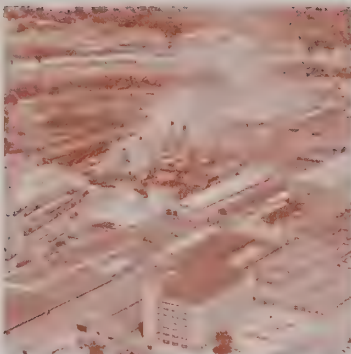
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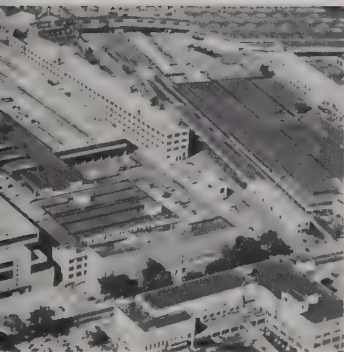
FORT WAYNE



WATERLOO



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MADISON



# 1955

## Annual report

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GROWTH AND PROSPERITY IN

# Five midwest cities

**T**he Midwest is not an economic problem area. It has shared fully in the nation's vast growth and in the almost unbelievably high standard of living the American economy produces. To be sure, Midwestern growth has not matched that of the newer areas in the West and Southwest, but the Midwest has held its own. With 15 per cent of the nation's population, Illinois, Indiana, Iowa, Michigan and Wisconsin account for almost 19 per cent of the nation's personal income (as the region did a generation ago), a fourth of the factory output and nearly a fourth of the farm income.

But to the Midwesterner, this is not the whole story. Speaking more realistically, there is no such thing as "the Midwest economy." What we have is a collection of smaller economies: close to three dozen distinguishable city economies and two broad agricultural economies — Corn Belt farming in Illinois, Indiana, and Iowa and Dairy Belt farming in Michigan and Wisconsin. Mere aggregations of reported facts for the Seventh Federal Reserve District cannot portray, in full color and 3-D, the underlying economic conditions and trends characteristic of these areas. This is because of the diversity within such aggregates.

Certain types of economic activity are common to all Midwestern metropolitan areas, as well as to their counterparts elsewhere. These local activities are in contrast to the economic specialization which differs considerably from one city to another and imparts to each a distinctive set of economic characteristics. Some cities have heavy concentrations of

The Seventh District now has 31 communities which, by the Census Bureau's definition, are "standard metropolitan areas." These are cities over 50,000 and the counties which include them and their environs. Most metropolitan areas have farm as well as urban populations and economic activities. Our studies are of the urban segment of the local economy.

rapidly growing, but rather unstable industries. In others, industries are more stable but less rapidly growing. Some have a considerable degree of diversification within the metropolitan area boundaries. A few — very few — depend for their incomes on the output of things which the rest of the country seems less and less interested in consuming. Thus, what distinguishes the structure of the individual urban economy are its economic specialties and the specific firms within those specialties.

## **Cities, towns and farms**

Two-thirds of the people in this part of the Midwest live and work in and around cities of 25,000





or more population, and a third in smaller towns and on farms. To some extent, the character of a city's economy is related to its size. There seems to be a significant distinction between the very large cities — the metropolitan areas with over a half a million inhabitants — and the medium-sized cities. The five cities discussed here — Decatur, Illinois; Fort Wayne, Indiana; Waterloo, Iowa; Flint, Michigan; and Madison, Wisconsin — illustrate growth in the medium-size group, which all told includes close to a fourth of the Midwest's population. These five cities have all done exceptionally well recently, though they are by no means the only vigorous and growing communities in the Seventh District. They

give a picture of some of the very different bases of urban economic growth.

What makes for prosperity, stability and growth in a metropolitan area? To some extent, a city's way of making its living is a circular process. People "take in each other's washing" — that is, a fair proportion of the workers in every community earn their keep by producing goods and services for each other. This kind of local specialization has existed in cities for centuries. However, ours is an interdependent national, not local, economy. No modern city produces within its own borders all the building materials, clothing, home appliances, automobiles, machinery and equipment its citizens want to

**In every city, local activities — "taking in each other's washing" — provide**

part of the community's income . . .

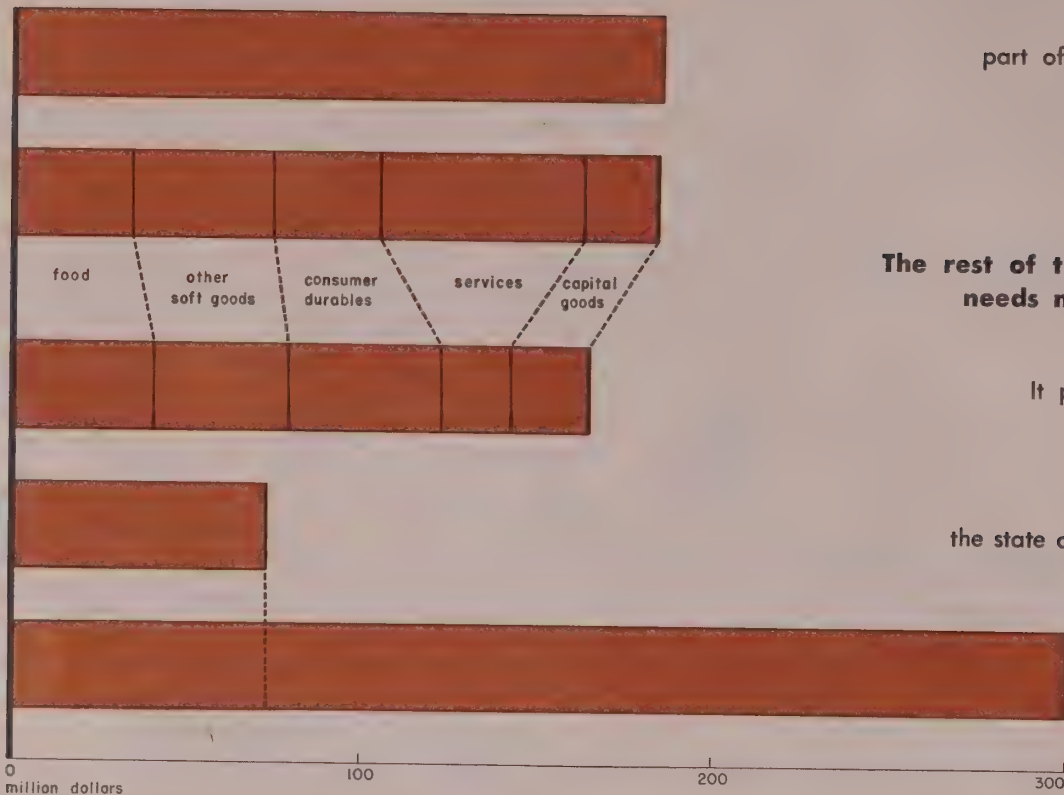
and part of its needs.

**The rest of the goods and services it needs must be "imported" from other places.**

It pays for these "imports" . . .

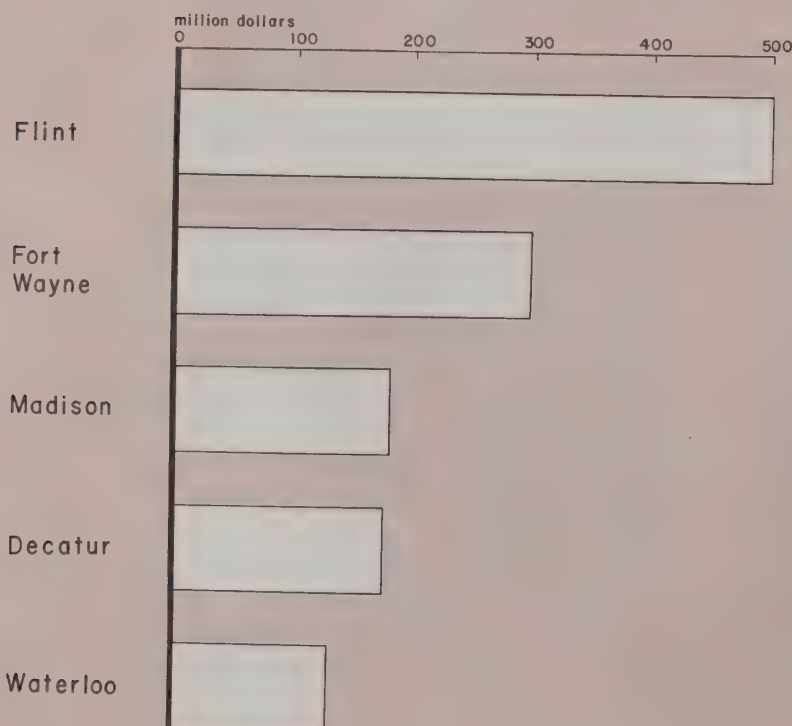
and makes its contribution to the state and Federal governments . . .

out of its earnings from "exporting" to the rest of the country and the world.



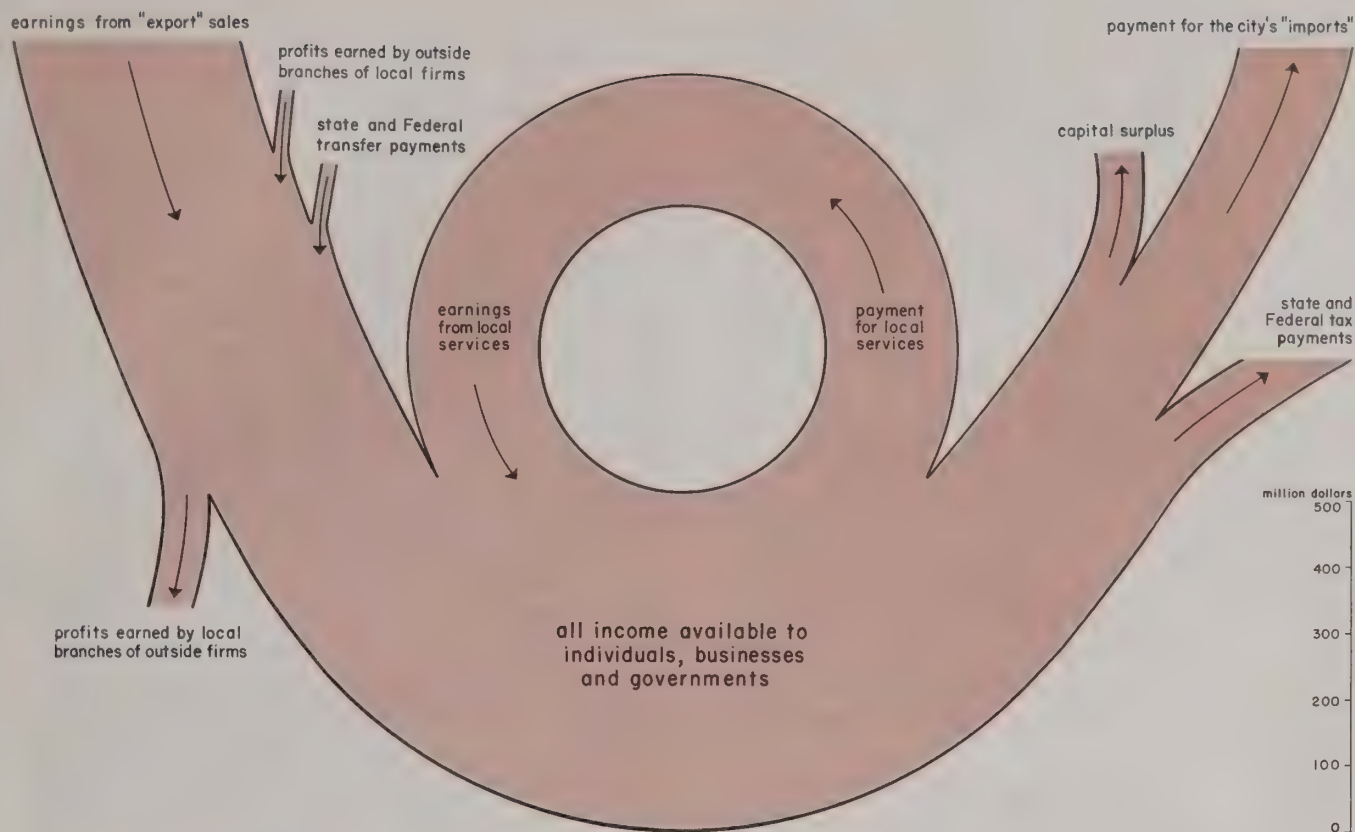
The figures used here, while representative of Midwestern cities generally, are actually for Fort Wayne.

**Total "export" earnings in the five cities**



The composition of a city's "export" industries accounts in large part for the character of its economy. Cities differ not only in the products in which they specialize and "export," but also in the level of their "export" earnings.





### A city's income stream...

is made up mainly of payrolls and business earnings from "exporting" (stream on left) and of comparable earnings from activities designed to meet local needs. The local sector of a city's economy (the inner stream) is essentially a circular flow, since the income generated by local services corresponds to the value of the economic effort devoted to serving the local market. The income available after taxes and adjustment for movements of profits (pool at bottom) is used to buy the goods and services the area consumes but does not produce itself — its "imports." The residual surplus, if any, is an accretion to the area's financial strength.

buy. In highly developed countries, the advanced state of technology permits cities and regions to specialize in the production of the things which they can make most efficiently.

To buy the "imported" goods and services its residents need, a community must produce goods and services which it can sell outside its own borders. In other words, it must "export," and in substantial volume, if its citizens are to enjoy the great variety of goods which go to make up a high standard of living. And since a large proportion of sales within a city are to individuals and firms deriving their earnings from "export" activities, enterprises which primarily serve the local market, like trade and service establishments, depend for their

success ultimately on the community's "exporters."

Moreover, with infrequent exceptions, the activities that comprise a city's "taking in its own washing" are similar from place to place. Services rendered by laundries, lawyers and doctors, bakeries and a variety of retail establishments are roughly proportionate in different cities in the same part of the country. A city's well-being, therefore, depends mainly on the external markets for the products in which it specializes and on the effectiveness with which its producers compete for these markets. For example, payrolls, employment, retail sales and bank deposits in most eastern Michigan cities are closely related to the sales of their principal "export" products — motor vehicles and parts.

An appraisal of a city's economic structure requires not only an examination of the present and prospective demand for its exports, but also an analysis of investment in the community and how it is financed — whether from the savings of local citizens and businesses, through local financial institutions, or in the national capital markets. For economic activities on current account — “exporting” and serving local needs — while the main, are not the only things indicative of a city's resources and prospects. The extent and tempo of construction activity — capital formation — whether new plant and equipment, housing or public construction, are other critical indicators for the future.

A community's ability to maintain and improve its competitive position as an “exporter,” for example, depends in part on the condition of its physical plant and what is happening to this plant. While it makes little difference if the capital formation in an area is financed from local or national savings, the net savings position of the community — on balance whether it is acquiring more financial assets and capital goods than it is using up — reflects the accretions to or sapping of its long-term financial strength.

Though an analysis of an urban economy is incomplete without a careful scrutiny of the local investment and savings process, our stories below highlight current activities, and only the “export” industries at that. This is for two reasons. First, any thorough-going appraisal of the capital situation requires far more information on how much a com-

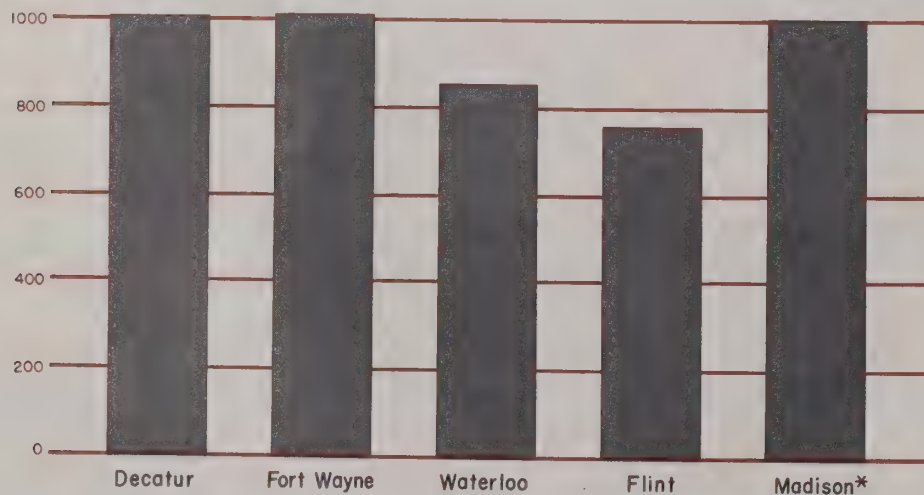
munity saves and how it uses its savings than is yet at hand. Second, the “export” activities rather than the local ones are what give an area its distinctive structure and flavor.

### The flow of income

Tracing the city's flow of income underlies the discussion which follows. Firms and individuals in a community sell their goods and services, some to outsiders, some to others in the same locality. Part of the receipts from such sales, however, represent the materials which economic units purchase, process and then resell. Some raw materials are very raw indeed, as in the case of most manufacturing establishments. Others are far from raw, as in the case of retail establishments which purchase apparently finished goods from wholesalers; they become truly “finished” only when sold to the ultimate consumer. The value added in this process — sales less purchases of materials for resale — represents the community's earnings from its contribution to the productive process. These earnings include wages and salaries, profits, interest and rents. Generally, the most remunerative industries are those which use up substantial volumes of plant and equipment over the years in the course of their business. Thus a portion of the community's earnings represents provision for charging off the costs or replacement of depreciating assets.

In almost every American city of any size, much of the economic activity is carried on by businesses which are branches of national or regional corpora-

dollars per capita  
1200

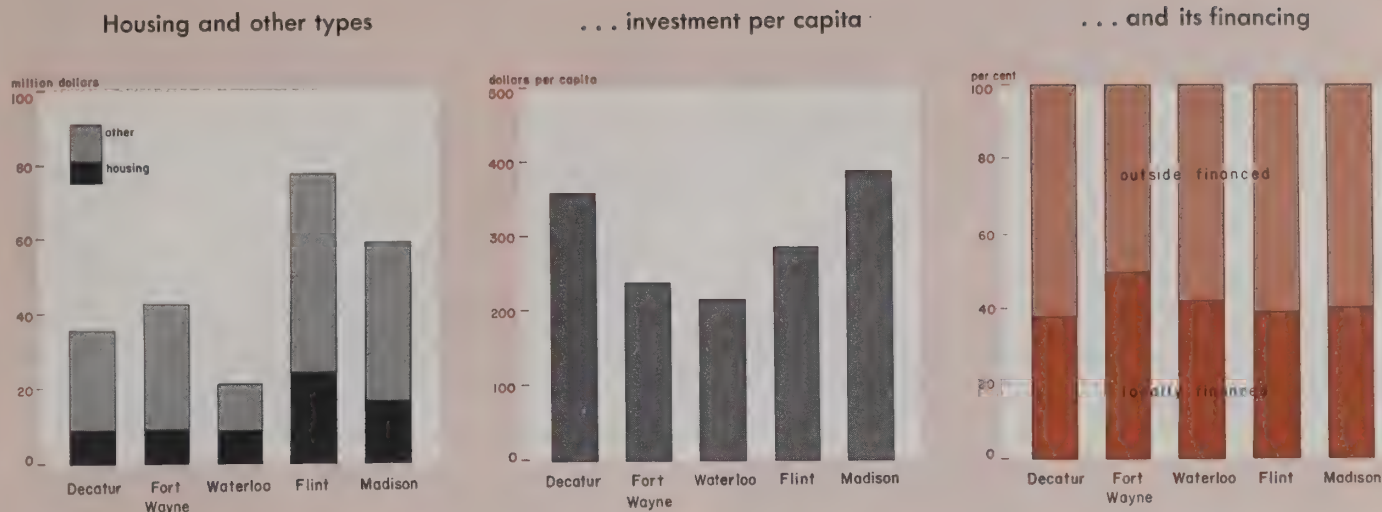


**Earnings from  
local activities**

\*Student population excluded



## New investment in the five cities



tions. The profits these branches yield on their activities in the branch city are not available to local residents, but flow out to the companies' headquarters, for disposition as managements see fit. On the other hand, in most cities there are some locally headquartered firms which have profit-making branches elsewhere. These profits in a certain sense augment the headquarters city's income stream. Similarly, there are inflows and outflows of dividends, interest and rents — inflows on account of local ownership of equity interests in outside businesses (principally national corporations), of debt obligations of outside businesses, individuals and governments, and of real estate outside the community. The outflows are to outside owners of local businesses, to outside holders of debts of local businesses, individuals and governments, and to outside owners of local real estate.

Another addition to the community's income consists of transfer payments from state and Federal governments. Local public agencies receive state and Federal grants for a variety of purposes — for roads, schools, public assistance, public health and the like. Individuals receive state or Federal payments for social security, veterans' pensions, old-age assistance, unemployment insurance and so on. In prosperous periods in high-income cities, like most of those in the Midwest, such payments to individuals are apt to be fairly nominal in total. Far larger in total are the amounts paid out in state and Federal taxes, which represent the contributions a city

makes to the support of costly statewide or nationwide governmental functions, notably national defense.

### "Imports" and balances

After all these inflows and outflows, what remains is the income available to the community for spending on goods and services for consumption and investment within the area and for saving. Some of the consumption and investment goods are produced locally, but most are "imported" from outside the area.

Frequently, in a rapidly growing city, "imports" will exceed income available from "exports" and other outside sources. This is because a growing city is a place where a great deal of new investment, in homes, factories, stores and public facilities, is going on. Much of the construction activity in the typical medium-sized city is carried on by branches of national and regional manufacturing, utility and trade corporations. Such firms finance investment in any particular city from their internal funds or by resort to the national capital markets. Also, much of the home building and local government construction is financed by borrowing in national capital markets. In effect, an excess of "imports" caused by the high rate of new construction activity characteristic of a growing community is financed by an inflow of capital. In parlance of international trade, a surplus on capital account offsets a deficit on current account. Note that such a deficit does not spell weakness for a city, but rather strength. All

that new investment will make the city a better place to live and do business in and hence a more effective producer of goods and services for sale to the rest of the country and the world. For a city's competitive position — the efficiency of its "exporters" and its attractions as a location for new and expanding firms — is markedly affected by the state of its physical plant, its factories, housing, schools, streets, water and sewer facilities and the like.

### **The "export" industries**

What are our five cities like? All five are large-scale producers of goods and services sold locally. Earnings from such sales amount to from 750 to 1,000 dollars for each man, woman and child residing in the communities. But they are even larger-scale producers for "export." In all five cities, manufacturers are major "export" earners. Their percentage of total "export" earnings ranges from over 95 in Flint down to 50 in Madison.

In the Midwest, two types of manufacturing activities are found in virtually every city in some degree. First, there is processing of farm products and making supplies for farmers (as one would expect in the midst of the world's greatest agricultural region). Second, and frequently dominating the scene, there is the manufacture of motor vehicles, things that go into them and things that service them (also to be expected, since the industry is the country's largest and two-thirds of the industry is in the Midwest).

The five cities studied here are no exception to the general rule. In Decatur, the two types of manufacturing account for 75 million dollars of a total of 170 million dollars in "export" earnings. The major specific farm and automobile products are soybean and corn products, automatic transmissions and auto hardware. In Waterloo, automobile-related production, while present, is small, but meat packing and farm machinery production together yield three-fourths of the "export" earnings. Fort Wayne, on the other hand, gets a very substantial portion — close to 30 per cent — of its "export" earnings from the output of trucks, trailers, automobile axles and similar products, and a small, though significant, portion (over 20 million dollars in absolute amount) from meat packing and other farm-related manufacturing. The Flint story is 95 per cent automobiles — Buicks, Chevrolets, spark plugs and automotive hardware, in the main. Madison gets a fourth of its "export" earnings from food processing — mainly meat packing — and a much smaller

amount from automobile-related manufacturing.

Decatur, Madison and Fort Wayne, especially the last, have really large manufacturing "export" earners outside these two industries. In Decatur, a number of hard goods industries are important, especially the output of construction machinery and water and gas distribution equipment. Madison has major producers of machine tools, flashlight batteries and hospital equipment. Fort Wayne is represented in a wide variety of manufacturing industries, but the biggest is the output of magnet wire and electrical goods, together earning close to 125 million dollars. In part, the relatively lesser diversity in manufacturing in Flint and Waterloo is explained by the overwhelming importance of the very largest "export" earners in the two cities. General Motors establishments account for nearly all Flint's very sizable export earnings, while the two largest Waterloo firms account for about 70 per cent of that city's "exports."

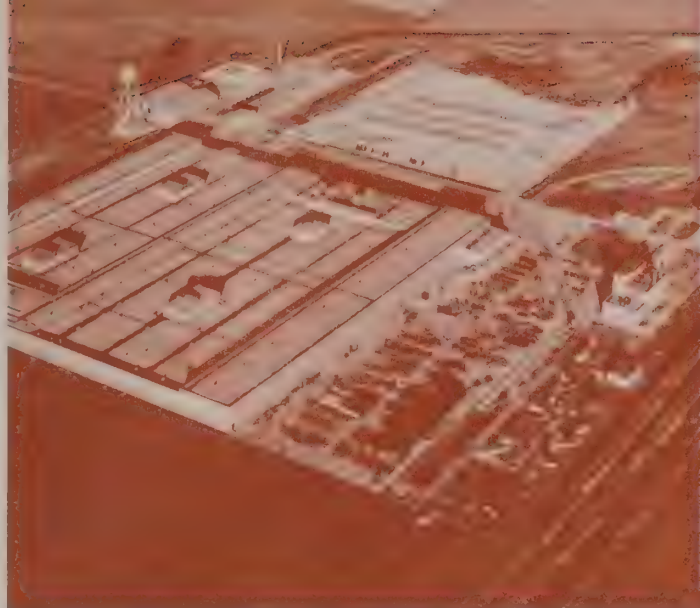
Midwestern cities generally are heavily concentrated in the production of durable goods, regardless of how wide the actual variety of different products is. Thus, the production of metals and things made of metal generate the bulk of the "export" earnings in four of these five cities.

### **Stores and offices**

Both geography and history have a lot to do with a city's nonmanufacturing "export" earnings. Except for Flint, the cities have substantial rural hinterlands and have long served as regional trade, service and financial centers. For a variety of reasons — which may very well change in coming years — Flint's position has differed. Madison is much the most important as a regional center — in part because the distances to effectively competing centers are greater and in part because of the attractive power of a state capital. Here, too, is where the influence of historical developments really shows up, for Madison's single largest "export" industry is comprised of the activities of state and Federal governments — the university, the state government proper, and a number of major Federal establishments. In Madison, "exports" of government services are eight, ten or even more times as important, relatively and absolutely, as in the other four cities, and consequently nonmanufacturing "exports" more than match manufacturing in total.

This, then, is what our cities are like in outline. The rest of our story tells what they are like more precisely, why they are like that and their prospects for growth and stability.





## DECATUR

### Town in transition

Until World War II, Decatur was a typical medium-sized Midwestern city. Manufacturing, the dominant activity, centered on the processing of agricultural raw materials, and most of it was done in locally-owned factories. The other major source of "export" earnings came from supplying goods and services to the surrounding rural areas and small towns. In addition, the shops and operations of the Wabash and Illinois Terminal railroads provided Decaturians with a substantial number of jobs.

These activities have remained, and many have grown, some vigorously and consistently. But superimposed on the growth of the "old" Decatur is a truly spectacular expansion in new industries. Over the past 15 years the area has become a production site for a number of industrial giants. The metamorphosis can be seen throughout Decatur's economy.

Most of the change has been in what is now Decatur's number one activity, the manufacture of metal products. Currently, this activity employs around 11,000 people in the metropolitan area, just about four times the 1940 level.

#### Change in Decatur's employment

	Prewar (per cent of total)	Current
Metals industries .....	10	28
Food processing .....	10	13
Railroads .....	10	5
Other manufacturing and utilities.....	13	18
Other activities .....	57	36

Prewar Decatur had local foundries, structural

metal products and plumbing equipment companies which dated back many years. In fact, two of Decatur's ten largest firms — those with employment of 500 or more — are long-established manufacturers of metal products, and both are leaders in their respective fields. The Wagner Malleable Iron Company, employing almost 800, is one of the nation's most important producers of malleable iron castings for sale. Most of Wagner's and the industry's output goes into transportation equipment, including motor vehicles. Important for these firms, moreover, is the tendency for auto and truck manufacturers to produce more of their own component parts. The country's very largest producers of castings even today are the vehicle manufacturers whose castings are for their own use, rather than for sale.

The other "old-time" metal products firm is the Mueller Company. Its origins can be traced to a gunsmith established in 1857. If this is a legitimate way of tracing industrial family trees, it is really Decatur's oldest manufacturing establishment. Today it is the nation's leading producer of gas and water main equipment, especially tapping equipment. When you see a new house going up, chances are that Mueller equipment is being used to tie it into the water and gas systems. The boom in residential home building and the development of new subdivisions has been a real stimulant to Mueller's activity. In addition to 1,000 people in the Decatur plant, Mueller now employs an additional 1,500 at branch plants in Tennessee, California and Canada.

While these two companies, along with a number of other native Decatur metal-fabricating firms, have grown and prospered, it is still fair to say that their relative importance has been greatly reduced by the newcomers, the branches of major U. S. firms. The Caterpillar Tractor Company alone, for example, will employ more than all of the older metals firms put together by mid-1956.

The first of the "new" type of metal product fabricators, the Houdaille Industries, Inc., actually came to Decatur some time prior to World War II, but the bulk of its growth in employment has occurred since then. About 800 people work in its Decatur plant making various types of automobile hardware. In addition, Houdaille operates Macon Arms, Incorporated, a Navy projectile plant employing about 700. The Macon Arms plant was originally built by the Government as a Manhattan Project facility. The availability of this plant next door to Houdaille, an experienced Navy contractor, made it a natural for its present use. While employment in this activity has been more or less stable for some five years, it is, of course, subject to the uncertainties of military planning.

The Marvel-Schebler Division of Borg-Warner Corporation moved to Decatur several years ago. Well over half of its current employment of 1,800 has been added since the completion of a new automatic transmission plant in 1953. Thus, the expansion of Marvel-Schebler is a direct consequence of the increased popularity of this accessory. Decatur, moreover, is an ideal location for its production. It is on a main line of the Wabash Railroad, between Detroit and St. Louis, major production and assembly points of the Ford Motor Company, the biggest buyer of Borg-Warner automatic transmissions. Marvel-Schebler also has a considerable volume of activity in the production of carburetion equipment for farm and industrial vehicles and aircraft.

### The big newcomer

By far the biggest single addition to the ranks of Decatur's export "earners" has been the Caterpillar Tractor Company plant completed in 1955. Its projected employment peak of around 3,200 is scheduled to be realized in a few months. The Decatur plant will produce all of Caterpillar's output of rubber-tired tractors and all of its motor graders.

The graders are used in road building and other earth-moving jobs throughout the world. In fact almost a third of all Caterpillar sales in recent years have been outside the United States. The tractors are almost all for off-highway use, and many of

them are also used in building highways and in earth moving. However, they are also employed in many other phases of construction, materials handling and on large commercial farms.

When Caterpillar decided to transfer the production of these two products out of Peoria in order to make room for expanded diesel engine and track-type tractor production there, its choice of a new plant location was restricted by the necessity of trucking finished engines for the tractors and graders from Peoria to the new plant. However, a number of cities besides Decatur are close enough to Peoria to meet this requirement. One force pulling Caterpillar to Decatur was its record of good community relations during World War II when it operated the Caterpillar Military Engine Company there.

This wartime operation left another legacy to present-day Decatur. The building which housed it is now the site of a U.S. Army Signal Depot which currently employs about 1,700 civilian workers who receive, store, issue and repair communications and photographic equipment.

The Signal Depot is a permanent Army installation which would indicate substantial employment for the foreseeable future, although the actual level at any one time is subject to the uncertainties of military planning. During the Korean war the Depot's employment reached a peak of 3,000 workers.

### "Soybean, U.S.A."

Since the beginning of the industry, a very large proportion of all soybean processing in the entire country has been carried on in Decatur. And at one time, toward the end of the 1930's, soybean processing was far and away the most important

### Jobs in the Decatur area\*

	1955 (thousands)
Total .....	43
Metal products .....	9
Soybean and grain products.....	4
Other manufacturing.....	5
Construction .....	3
Transportation and utilities.....	4
Wholesale trade .....	2
Retail trade .....	7
Government .....	4
Business and personal services.....	5

\*Macon County nonfarm employment



industry in Decatur. Moreover, bean and corn processing operations probably have at least doubled in size since then. Despite this tremendous concentration, the phenomenal expansion in the metals group has put the soybean in a runner-up position.

Currently soybean and corn products account for around 35 per cent of Decatur's earnings from sales of manufactured goods outside the area, but only about a fourth of manufacturing employment. This reflects the tremendous capital requirements per worker in this industry.

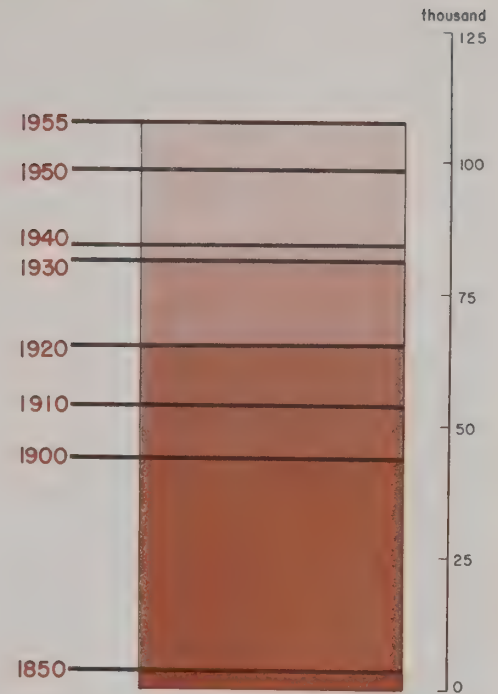
Corn and soybean milling requires large amounts of both working and fixed capital. As in most agricultural processing industries, working capital requirements for carrying raw material inventories are considerable and seasonal, and extensive storage facilities are also needed. In addition, the technical production process is a big user of plant and equipment. The vast space requirements of soybean processing render it the most conspicuous if not the biggest activity in Decatur. Also, Decatur probably accounts for a bigger segment of the industry than ever before, thus substantiating the area's reputation as the "Soybean Capital of the World."

By far the biggest firm in the industry is the A. E. Staley Manufacturing Company which employs more than three-fourths of all Decatur grain and soybean processing workers. Somewhat more than half of Staley's 3,000 workers manufacture corn products, which range from industrial starches, syrups and dextrans and various chemical products to a wide variety of branded household products.

In addition to its corn operations, the company is probably the world's largest processor of soybeans, having been the trail blazer in soybeans back in the mid-Twenties. Its soybean products also go into myriad industrial and household uses. Its total volume of operations reflects the stability characteristic of soft goods sales, thus serving as a valuable complement to the metals industries in Decatur's economy. The same can be said of the three other soybean processors in Decatur. These plants, with a total employment of around 700, in each case represent the soybean branches of large grain processing firms.

Staley has been more than a leader in its industry. It has also been a leader in Decatur. Its impact can be seen most dramatically in Lake Decatur, a 2,800 acre man-made lake formed in 1922 by damming up the Sangamon River. The initial demand for this venture came from Staley in its desire for an assured supply of water, a vital raw material in corn processing. Today the lake serves as one of Decatur's outstanding recreational features, as well as the city's

### Population growth in Macon County, Illinois



water supply. Moreover, while the lake is the property of the city, Staley recently made a substantial contribution to finance raising of the dam to increase the capacity of the lake which has been reduced by silting from the Upper Sangamon watershed.

### The Wabash Cannonball

The extensive yards and shops of the Wabash Railroad are almost as impressive a sight as the array of grain elevators alongside them. Decatur, at the hub of the Wabash system, houses the headquarters of an operating division of the Wabash and the system's mechanical department. Thus it is the site of the road's main car and locomotive shops where all heavy repairs on rolling stock are made. In these two activities combined the Wabash now employs around 1,800 people.

Before the switch from steam to diesel power, employment on the Wabash was much higher, probably as high as 3,000 in the early postwar period. The reduction in jobs, however, reflects neither a weakening in the railroad's position nor a dissatisfaction with Decatur as a base of operations. It is based solely on the vastly lowered maintenance requirements of diesel locomotives which are now used exclusively by the Wabash.

The strength of the Decatur area is shown in

still another way in the dieselization experience of the Wabash, namely in the ease with which at least a thousand displaced rail workers were readily absorbed into the economy. Besides the reduction on the Wabash, other railroad workers lost their jobs when the car shops of the Illinois Terminal Railroad became inactive. While most of the displaced rail workers were probably not directly absorbed by the new industries themselves, industrial expansion in the area certainly made the adjustment much easier for those railroaders not going into retirement. By the same token, the declines in rail employment may well have had a tempering effect on the stresses placed on the labor market by the fast pace of recent industrialization.

Another utility offering substantial employment and providing services for sale outside the area is the Illinois Power Company. Although it has no generating facilities in Decatur besides some standby equipment, it does employ over 500 people in its general offices located there. This is in addition to more than 300 people in its area office. Currently, Illinois Power is constructing a new office building on Lake Decatur to house its general offices. Another large new building under way will house service activities.

### The wash dress capital

Another activity of which Decatur residents are very conscious is the manufacture of cotton house dresses. Few other medium-sized Midwestern cities have important apparel manufacturing activity, and

thus Decatur is distinctive. Moreover, because Decatur was one of the first places to make low-cost women's ready-to-wear dresses, it is sometimes thought of as the wash dress capital of the nation.

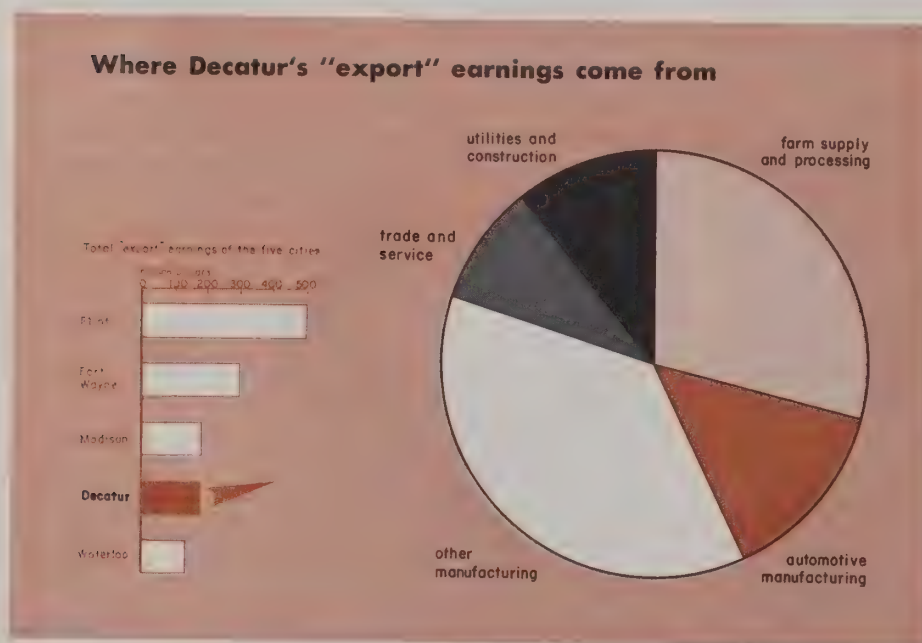
The dress industry in Decatur dates back to the 1890's when the Home Manufacturing Company was established. Today Home employs around 300 people in Decatur while six other producers, all offshoots of the original company, employ close to 600 more workers. Thus, while the wash dress industry is a picturesque and distinctive aspect of the Decatur economy, its total importance is rather small compared with other industries.

In the past, of course, the house dress industry was relatively more important. When Decatur's total employment was much smaller than now, the wash dress manufacturers provided close to a thousand jobs. In past years it was also important in providing one of the few sources of jobs for women. Today many other job opportunities exist for female workers, and the dress firms have found it difficult to compete for workers in the local labor market. Actually they have been forced to branch out into smaller towns and to other regions, especially the southeast part of the United States. Home Manufacturing, for example, now employs as many workers in other centers as it does in Decatur. Most of the other firms also have branches.

Labor costs are very important in this industry because of the keen competition and rigid prices. Before the War the typical dress sold for \$2.98. Today the price is still the same, and the quality of

the dress has been improved. However, even though the industry has been hard pressed for several years, the Decatur firms have held up fairly well, benefiting from efficient management and the national reputation they have built up over a period of years.

Among the more important alternative job openings for women in Decatur these days are in the manufacture of molded plastics products. This industry, initiated in Decatur by the Grigoleit Company before World War II, employs about 700 people and ac-





counts for even more of Decatur's "export" earnings than does the dress industry.

The major firm in the plastics field now is General Electric which bought a section of the Government-built Caterpillar Military Engine plant following the War to manufacture all kinds of molded plastic knobs, pulls, and accessories for home appliances. Its output goes to most of the major appliance makers in addition to GE's other divisions. Besides the molded plastics for appliances, it also makes a line of industrial products, mainly silicones.

Clerical jobs for women are also available to an increasing extent. Besides the Illinois Power Company offices, about 250 are employed in Decatur by the American Farmers' Mutual Insurance Company, another relatively new firm in the area.

### Decatur's growth continues

The latest addition to Decatur's industry, a new branch plant of the Pittsburgh Plate Glass Company, will be under construction shortly. On completion it is expected to employ around 300 workers. This plant represents an entirely new activity in Decatur.

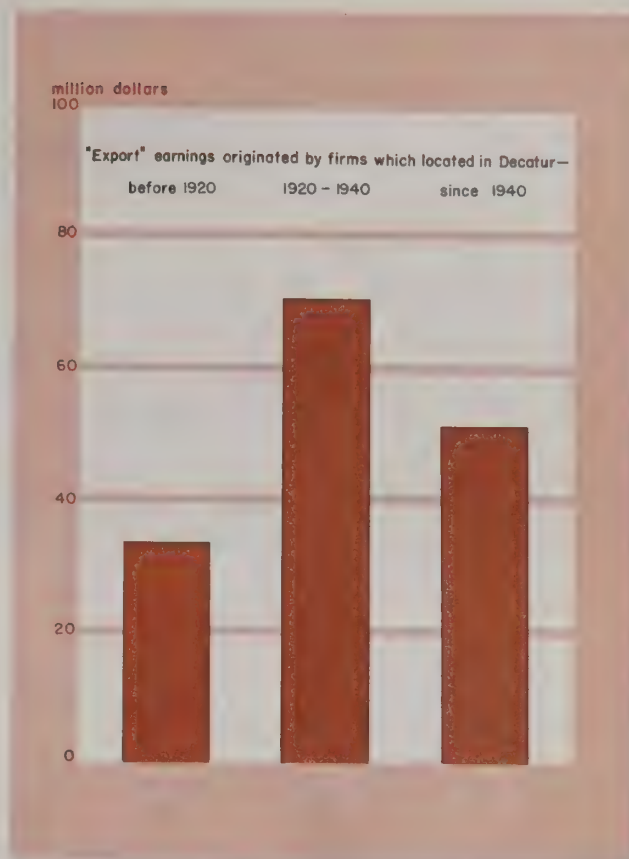
While Decatur continues to branch out into the production of more and more new products, two common threads trace their way through much of the development in both the old and newer firms in the area. These are automobiles and construction.

The great bulk of the metal products firms' activities are centered around these two industries. Probably more than half of all the "export" earnings of the metals producers depend heavily on the construction industry. This includes products ranging all the way from water and gas line supplies and structural steel frameworks to road-building and earth-moving equipment.

Almost as important a customer as construction is the automobile industry. Probably every one of the auto manufacturers buys forgings, castings, hardware or transmissions from Decatur. In this respect Decatur is representative. There are few Midwestern industrial centers where supplying the auto industry is not an important activity. Decatur is highly atypical, however, in the rapid pace at which its industrialization has occurred.

A number of reasons underlying this rapid growth are apparent. The successful expansion of a few major defense producers during World War II is a contributing factor. The Signal Depot, Macon Arms and General Electric all occupy facilities originally built for war production. Caterpillar's decision to locate in Decatur was also based at least partially on its wartime experience in the area. An-

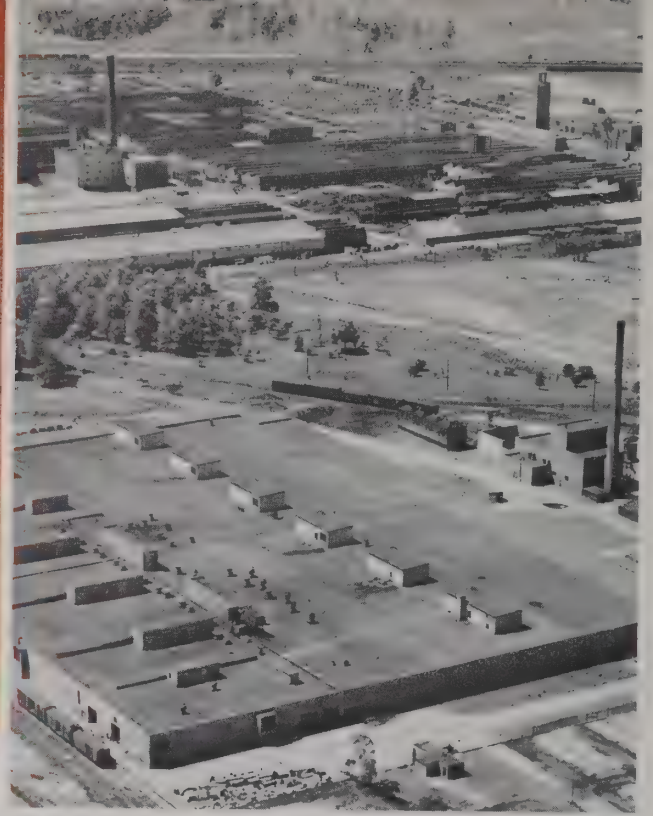
### Firms new to Decatur account for much of the area's "export" earnings



other factor which has made possible the fast pace of expansion is the ready adaptability of the area's labor supply. The importance of Decatur's direct rail connections to most of the leading cities of the Midwest is clearly evident.

Also, the community has tried to insure its future growth and prosperity by investing heavily in public projects to serve the area's greatly expanded physical plant. For example, last year in the United States for every five dollars expended on private construction in medium-sized cities, about one dollar was spent on new public facilities to serve the new homes, factories and stores. In Decatur the ratio has been about double this in recent years, despite a high level of private construction.

Decatur thus is assuming more and more of the aspects of larger cities, even a critical downtown parking situation and a tight labor market. No longer merely a supply, processing and trading center serving a surrounding agricultural hinterland, Decatur is becoming an important industrial center in its own right.



## FORT WAYNE

# F Maturity with hard goods

Fort Wayne's economy is unquestionably the most mature among our five cities. It is an area of high wages and highly skilled labor, of firms which are tough competitors in tough industries — industries which are growing but exposed to all kinds of shock waves originating elsewhere in the nation and the world. In these respects, as in many others, Fort Wayne is a smaller-scale version of much larger cities. The casual visitor is apt to find it more like Chicago or Cleveland than cities in its own size class.

To some extent, maturity is simply a measure of chronological age. The Fort Wayne metropolitan area reached the 100,000-mark in population a decade before Flint, 20 years before Madison, and 40 years before Waterloo and Decatur. Its industries by and large are not newcomers, either to the area or to the world. Fort Wayne was on its way to becoming an industrial center when our other four cities were regional trade and service centers.

In large part, this was due to Fort Wayne's superb location for heavy manufacturing activity. It is directly astride the country's main belt of population, transportation and industry — extending in a band from New York and Boston across the northeastern states and northern Ohio, southern Michigan, northern Indiana and northern Illinois. Over 50 years ago, Fort Wayne had the requirements for heavy industry: closeness to raw materials and markets, good trans-

portation to more distant sources of materials and markets, and access to the country's heavily populated quadrant for labor supply. Thus it was natural that Fort Wayne participated in the early waves of Midwestern industrialization.

Like the older and larger centers, Fort Wayne turns out more different kinds of manufactured products than one would expect in a city of its size. However, this product diversification does not necessarily indicate that the city is well insulated against external shocks. Fort Wayne for all its diversity is preeminently a city of hard goods producers, mostly metals and things made of metal. The demand for hard goods historically has been highly volatile in prosperity and recession, war and peace. Close to two-fifths of Fort Wayne's employment, close to half its income and three-fourths of its "export" earnings are tied to the manufacture of hard goods, and the bulk of this is concentrated in a few major types. What this concentration, despite the diversity of actual products, means is that in some periods, when business nationally turns down, all or most of Fort Wayne's major industries may be affected. In other recession periods some of the city's industries may expand and partly offset the contractions in others.

All this talk of maturity and vulnerability may seem to imply that the area's position is a poor one. This is not the case. Fort Wayne is truly one of the



pillars of our industrial economy with a prosperous past and a hopeful future. To be sure, the area is not among the country's newly rich; it has grown up to its industry. Fewer of Fort Wayne's citizens may live in new housing tracts and shop in new shopping centers than in some other cities, but then again more live in fine old homes on well-shaded streets and shop in long-established and well-known stores.

Moreover, the community has not stopped improving its physical setting; far from it. The elevation of the Nickel Plate Railroad tracks through the center of the city, completed just a few months ago, is the most striking of the improvement projects. This complicated job, long sought, newly opens virtually half the city to residential and commercial developments.

### The mighty electron

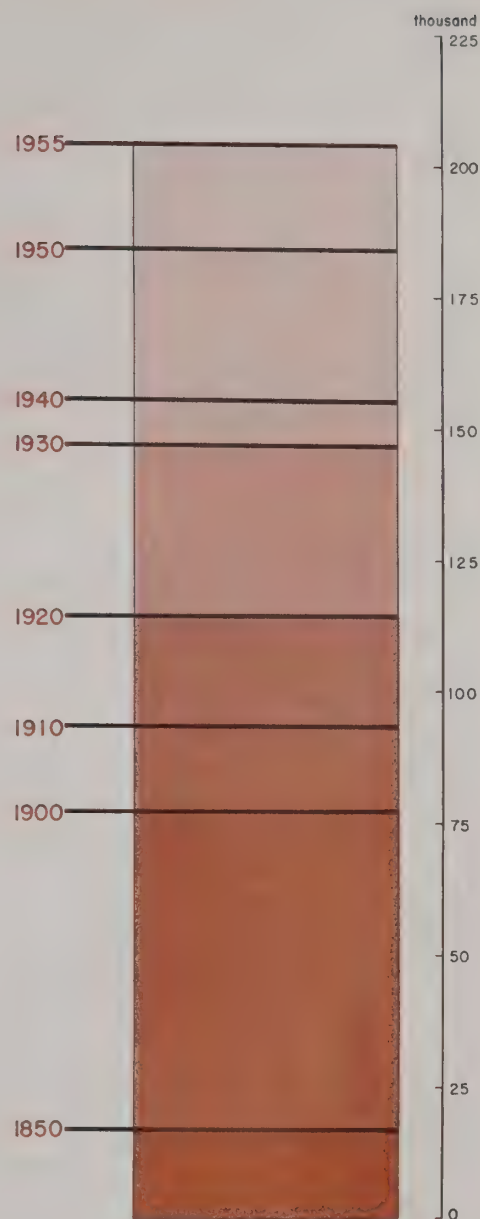
Electricity and motor vehicles are hallmarks of Twentieth Century technology, and they have made Fort Wayne what it is today. The manufacture of things activated by electricity and electronics and things which go into electrical machinery is the area's largest industry, if indeed it can be considered a single industry. Well over a third of Fort Wayne's "export" earnings are derived from the production of insulated magnet wire for electric motors, transformers, coils and electronics equipment, the output of electric motors and transformers themselves, and the production of electronics equipment.

The oldest and largest component of Fort Wayne's electrical industry is the production of small (up to 5 H.P.) electric motors and transformers by the General Electric Company. GE is by far the largest single employer in the area, with its employment ranging from 9,000 to 12,000 in its four Fort Wayne factories. Thus, it accounts for an eighth or so of the community's employment and a quarter of its "export" income.

GE does a few things in Fort Wayne besides turn out motors and transformers. For one thing, Fort Wayne is the headquarters for the company's entire component products division. For another, GE is a large producer of magnet wire, most of which is used in the company's plants all over the Midwest.

The motors and transformers are used mostly in home appliances of every description. A part of the output is sold to other GE divisions, but most is sold to other manufacturers. With the output of appliances concentrated in this part of the country, Fort Wayne is a highly competitive location—for example, one major use for small motors is in refrigeration and air conditioning compressors, nearly all

### Population growth in Allen County, Indiana



of which are made within hailing distance of Fort Wayne. Moreover, the output of products using small motors and transformers is expanding at a tremendous rate. However, GE is so large already in Fort Wayne that it is rather unlikely that the company will locate much more of the needed expansion there.

On the other hand, Fort Wayne can anticipate that GE will be an increasingly stable element in its economy as the demand grows for the type of things GE makes in the city. Moreover, the increasing list of final products incorporating motors and transformers gives the GE plant more and more "built-in" di-

### Jobs in the Fort Wayne area\*

	1955 (thousands)
Total .....	88
Electrical goods .....	14
Motor vehicles and parts .....	9
Other hard goods manufacturing .....	7
Nondurables manufacturing .....	7
Construction .....	5
Transportation and utilities .....	6
Wholesale trade .....	4
Retail trade .....	17
Government .....	8
Business and personal services .....	11

\*Allen County nonfarm employment.

versity and hence a degree of protection against business fluctuations.

Well over half the country's output of magnet wire is produced in Fort Wayne. The independent producers of wire and materials for magnet wire making together employ in the neighborhood of 2,000 persons. The city has been the country's magnet wire capital for a long time, and the industry is an indigenous one, which started with the Dudlow Wire Company years ago. Today there are three major producers — the Essex Wire Corporation, the Rea Magnet Wire Company and the Inca Manufacturing Division of the Phelps Dodge Corporation, one of the country's largest copper producers. Although the demand for magnet wire is highly sensitive to short-term fluctuations in the demand for electrical equipment of all kinds and hence is an element of instability in Fort Wayne, the prospects for increases in the output of electric appliances and apparatus make it a rapidly growing industry, in which short-run declines may be partially absorbed by the sharp growth trends. Leading utility companies, for example, anticipate a doubling in the use of electrical equipment within the next decade.

### Prosperity brings changes

The communications equipment industry—radios, television, radar and the like — has been represented in Fort Wayne for 25 years. But the character of the local operations has changed very substantially recently, after some years of large-scale expansion. To a great extent, the manufacture of radio and television sets consists of assembly operations using less highly skilled female labor. A few other industries in the area are strong competitors for women em-

ployees. A highly industrialized city with heavy labor requirements is often not the best location for electronics assembly work. Thus, more and more Fort Wayne's electronics firms have concentrated on more specialized types of electronics work.

The major firms, which all told employ about 3,500 people, are the Magnavox Company, Capehart-Farnsworth and Farnsworth Electronics, both now divisions of the far-flung International Telephone and Telegraph Company. Magnavox manufactures electrolytic condensers and does the development work for the entire company in Fort Wayne, but most of its local activities consist of extensive work on military communications and detection equipment. Farnsworth's business is also overwhelmingly military in nature and, like Magnavox, is largely research and development, as distinct from assembly line production. While the military and industrial electronics demand is perhaps potentially more volatile than the demand for radios and TV sets, both Magnavox and Farnsworth are engaged in the type of defense work which is likely to be in increasing demand over the long pull, barring mammoth changes in the country's defense effort.

Capehart has its divisional headquarters in Fort Wayne and produces black-and-white and color TV chassis in the city. Increased productivity and concentration on high-value color TV recently has enabled the division to maintain its local operations despite the competitive labor market. This, however, is unlikely to be the real growth segment of the area's electronics industry.

### Trucks and trailers

Fort Wayne factories whose output is related to highway transportation, with about 11,000 employees, run a close second to the electrical industries as a source of the area's income. Fort Wayne is mainly a truck as distinguished from a passenger car center. The demand for trucks, trailers and buses, all capital rather than consumer goods, has in the past experienced more pronounced fluctuations than that for automobiles, though the over-all growth has been even more rapid.

The largest producer is International Harvester, which manufactures the axles and transmissions for and assembles large heavy-duty motor trucks in the city. Harvester's truck division organizes its activities by location more or less on a product basis, and Fort Wayne's plant is the only one producing that type of vehicle for the company. These trucks are used extensively in road building and construction work and by the Federal Government. It is an expanding



market over-all, and Harvester accounts for about a third of the industry's total output of this class of truck. About a fourth of Harvester's employees in the area are engaged in activities other than truck manufacturing *per se* — mostly in the engineering department for the entire Motor Truck Division and in the service parts department.

The Fruehauf Trailer Company, the country's number one producer of trailers, make all kinds of trailers in Fort Wayne — tank trailers, stainless steel vans, auto haulers, bulk products trailers, to mention just a few. The company over-all is growing and has recently expanded substantially in Fort Wayne. However, it has about used up its space in the area, and further expansion will require the acquisition of new sites less conveniently located with respect to the existing facilities.

### Pistons and axles

The Zollner Machine Works, the country's only independent producer of heavy duty aluminum alloy pistons, sells the great bulk of its output to producers of heavy-duty trucks, and thus Fort Wayne is a strategic location for the firm. The company is now engaged in a major expansion in the city — the construction of a million dollar permanent mold aluminum foundry, which on completion early this year will employ about 300 people. The new foundry will improve the firm's position as far as supplies are concerned and enable it to produce pistons competitively for sale to passenger car manufacturers who purchase pistons in the form of castings. Zollner is one of Fort Wayne's outstanding growth industries, producing a unique product for a growing industry although it naturally is vulnerable to declines in the output of new trucks. Mr. Fred Zollner, incidentally, is a "one-man civic movement." He has provided the city with the Zollner Pistons, the famous professional basketball team; the Knot Hole Gang, an organization of 34,000 Fort Wayne and Allen County children, which organizes softball leagues and provides free admission to ball games, swimming pools and the skat-

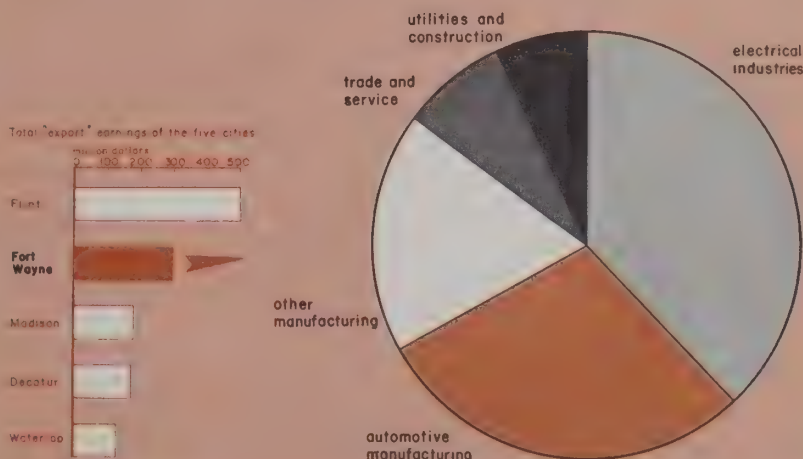
ing rink; and a variety of ice shows, theatrical productions and similar attractions.

Fort Wayne's main entry in the passenger car field is the Fort Wayne Division of the Dana Corporation, a Toledo firm, which makes rear axles for passenger cars and light commercial vehicles. Dana's local plant is a new one, for the firm came to the city in 1946. Since then it has enlarged the plant four times, and its capacity is now close to two and a half times that of the original installation and still increasing. With these new facilities, a skilled labor force and advantageous transportation, Dana in Fort Wayne is an effective competitor in a growing industry. It is subject to some instability, of course, but is likely to be better off than less efficient producers in the industry.

### "Fill 'er up?"

The area is both the capital and the birthplace of the gasoline pump industry, which employs about 1,500 people locally. S. F. Bowser invented and produced the world's first self-measuring gasoline pump in 1885, and the first computer pump was marketed by the Wayne Pump Company in 1932. Bowser, Incorporated, today makes a broad line of liquid handling and control equipment for the petroleum, chemical and other industries, including gasoline pumps, dehydrators, fuel oil equipment, tank truck dealer equipment and dozens of other products; in Fort Wayne. The Tokheim Corporation, a 55 year old local firm, is another producer of gasoline pumps and accessories and air and liquid dispensers. The

Where Fort Wayne's "export" earnings come from



Wayne Pump Company, the city's other representative in the industry, has moved its gasoline pump output out of the area in recent years and now makes air compressors and miscellaneous service station equipment and military products, notably lifts for military installations, in the city.

The gasoline pump business should be a very good one indeed. The consumption of gasoline and other petroleum products is both growing and resistant to swings in the business cycle. With the exception of the War and two years during the Thirties, gasoline consumption has risen steadily and at a rapid rate each year since 1920. Even in 1932 and 1933 the declines were small. If anything, the rate of growth has accelerated in recent years, and the anticipated increase in highway traffic will sustain this rate.

### **Still more hard goods**

Another large Fort Wayne enterprise tied to the capital and consumer hard goods industries is the local plant of the U. S. Rubber Company. The Fort Wayne factory is part of the company's Mechanical Goods Division and turns out products of rubber and plastics mainly for the automotive and aircraft industries, plus other molded rubber industrial products. The major influence on local activity is the state of the automobile industry. Increased use of plastics for a wide variety of products, plus the growth expected in the automotive industry, spell increased activity at the plant in future years.

U. S. Rubber, incidentally, along with the Dana Corporation and the Cleveland Graphite Bronze Company which makes bearings and bushings, all have located plants in Fort Wayne since the end of World War II. Prewar, the hard goods sector of the city's economy was made up almost entirely of electrical goods, trucks and trailers, and pumps. The newer plants add to the area's product-mix, though all three rely heavily on the automobile industry.

This does not exhaust the list of hard goods producers. The Joslyn Manufacturing and Supply Company, which makes pole line equipment elsewhere, turns out stainless steel bars, ingots, billets and wire locally. And there are at least 70 other factories, employing over 3,000 persons altogether, in hard goods lines.

### **The softer segments**

To be sure, the output of food and other soft goods in Fort Wayne is small relative to that of durable goods. However, by any other standard, non-durables manufacturing is not insignificant. It

employs over 6,000 people, three times as many as in Flint and 80 per cent as many as employed in these same industries in our other three cities, in each of which one or more soft goods industries are major elements of the economy.

Few of Fort Wayne's nondurable goods industries are rapidly growing ones, but some are quite stable both in employment and as a source of "export" earnings. For example, the area has meat packing companies, bakeries and dairy products firms which serve the regional as well as the local market. As befits a city built up to a great extent by people of German stock, Fort Wayne, like Milwaukee, St. Louis and Chicago, has famous breweries — the Centlivre Brewing Company and what used to be the Berghoff brewery and is now a branch of the Falstaff Brewing Corporation. Falstaff is a large and growing operation. The firm is an aggressive one, which has substantially improved its standing in the industry in recent years. It purchased the Berghoff brewery to provide a base for breaking into the very large Great Lakes regional market.

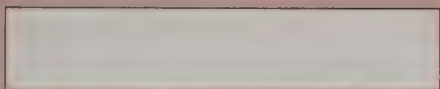
Fort Wayne also has a number of firms in the "needle" industries — textiles and apparel. These are long-established firms. In fact, Fort Wayne in 1887 had the country's first full-fashioned hosiery mill and still houses the headquarters, finishing and shipping operations of Wayne Knitting Mills, producers of "Belle-Sharmeer" stockings, the Fort Wayne Tailoring Corporation, a manufacturer of made-to-measure suits and coats, and Pollak Brothers, Inc., a producer of women's dresses and smocks. The needle industries have been characterized in recent years by wide swings in sales, a large amount of overcapacity and hence low profit margins. In Fort Wayne such industries must compete for labor with industries better able to pay high wages. As the case of the wash dress industry in Decatur indicates, needle industry firms typically are moving more and more of their manufacturing operations to smaller towns, especially in the South.

### **"Exporters" of services**

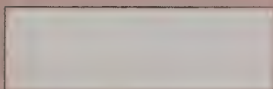
In Fort Wayne, a far more stable source of "export" income than its soft goods manufacturers is found in its activities as a supplier of all kinds of services to the surrounding region. The city has been successful in attracting wholesale, retail and service business from a wide area, in part because its hinterland is a relatively well-to-do one and in part because Fort Wayne's representatives in these businesses are well-established and reliable firms. Among the largest "exporters" in trade are the Kroger Company, which



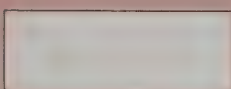
Most of Fort Wayne's **total** earnings



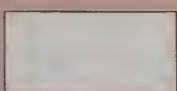
come from **manufacturing** largely



from **manufacturing** and mostly



in **branch plants** of outside firms



0 100 200 300 400 500 600  
million dollars

maintains a regional bakery, warehouse and distributing office in the city, and Wolf and Dessauer, one of the largest and finest home-owned department stores in the Midwest. In recent years, Fort Wayne has seemed attractive to a number of national firms as a national or regional focal point. For example, all 600-odd Kresge stores in the country are served from the Fort Wayne warehouse; Western Auto Supply has a regional warehouse and W. T. Grant is building one; and North American Van Lines, one of the major long-distance moving organizations, made Fort Wayne its national headquarters a few years ago.

The community's largest "exporter" of services has been also one of its fastest growing enterprises. The Lincoln National Life Insurance Company, 50 years old in 1955, is the nation's largest stock life insurance company. In the past decade, its insurance in force and its resources have nearly quadrupled. Its employment in Fort Wayne, now close to 1,400, has more than doubled in this period. The company has a heavy volume of reinsurance business

(the world's largest). It expects a steady increase in its over-all business in the future and in its local employment.

Lincoln National Life, incidentally, has been an important source of wealth to many local citizens. This is because its increasing business over the years has greatly appreciated the value of its stock, a good part of which is held by residents of Allen County, many of them employees of the company.

### Branches and the future

What, then, of the future for Fort Wayne? Forecasting is always hazardous and doubly so for a community in which so much depends on the decisions of national corporations concerning their branch operations. Fort Wayne is like other Indiana cities and unlike most cities in the other Seventh District states, in that much of its past growth has been due to the influx and expansion of branch plants of corporations whose headquarters and decision-making are elsewhere. This in itself is a tribute to the area's suitability as a location for industry.

The area's economy is likely to continue to grow and at least as fast as the country as a whole. There are divergent factors at work, as we have seen earlier in this discussion. A few industries have probably already gotten as big as they ever will, in Fort Wayne. A few are not rapidly growing in any case. The rest have favorable prospects for growth and much of the growth will continue to be in the area. The area still has positive attractions for national firms seeking to branch out or expand. In short, Fort Wayne does not seem a likely candidate for the spectacular kind of mushrooming that can change the face of a city. A moderate and sustained rate of growth seems more likely.

Moreover, although the area will continue to be exposed to the economy's instability by virtue of its reliance on high paying but vulnerable durable goods industries, Fort Wayne is not apt again to go through the extreme duress it has sometimes experienced. This is less due to changes in Fort Wayne than to changes in the nation's economic institutions. The country and its leaders are better equipped and more confident of their ability to avoid severe downturns than in the past, and hard goods centers especially will benefit from this ability and confidence. Also the market for the city's output is broader than ever before. More people and more industries buy its products. Diversification of customers may not completely stabilize firms like GE, but it should help in any except the worst of recessions.



## WATERLOO

### Two plants plus

The key to Waterloo's fortunes has been its location in the heart of the Corn Belt. The area's growth and prosperity depend mainly on supplying Corn Belt farmers and processing their principal product, livestock. Decades ago, when most Midwesterners lived on farms, economic activity in the region's cities and towns consisted primarily of marketing farm products and supplying goods and services to farmers. In fact, the assembly, processing and distribution of farm products provided the initial impetus for the growth of most larger Midwest cities. Cities like Chicago, for example, were located where agricultural marketing services could be performed most economically.

Today, even in the agricultural Midwest, the economy is primarily an urban one, and most cities, particularly the larger ones, specialize in producing things and services used by other city dwellers. The biggest cities of course are no longer farm oriented and the job of supplying farmers and handling their output is performed for the most part by smaller cities in the midst of farm areas. Some of them have proved to be highly efficient locations for large-scale agriculturally oriented industries. In these communities farm markets and products remain the predominant influ-

ences despite the change in the character of the national economy.

The Waterloo area is one of these. The manufacture of farm machinery and meat products generates about three-fourths of the community's "export" earnings. Wholesalers, financial institutions and stores which service farmers from the area's hinterland produce another 5 per cent of the total "export" earnings. Moreover, Waterloo, with its farm orientation, has been as successful in achieving growth and prosperity as most cities which have "turned their backs," relatively speaking, on agriculture.

Waterloo's success in its specialization is not hard to explain. The Midwest is the world's greatest agricultural area, and Black Hawk County is in its midst. Thus, it is centrally located with respect both to the market for farm machinery and the source of livestock supplies. And it can tap an ample reservoir of high-quality labor, for Corn Belt agriculture is a heavy user of machinery and frees much rural manpower for employment in nearby cities. A further result is that, as one local observer puts it, "The Iowa farm boy knows machinery, has a feel for it and will work."

Waterloo's "export" economy is specialized in an



even more dramatic way: The Rath Packing Company and the John Deere Tractor Works together produce 70 per cent of the area's "export" earnings and provide over two-thirds of the community's factory jobs. To a large extent "exports" from these two plants have sparked Waterloo's growth in the past. True, there are other "export" earners in the Waterloo area, most of them vigorous competitors in their own industries and some of them with bright prospects for future growth. But Rath and Deere dwarf all other activity in the area, and Waterloo's story is a tale of two plants plus — plus a number of much smaller but lively firms.

### Iowa's largest factory

Deere Manufacturing Company, the number two farm equipment manufacturer in the United States, produces all of its large wheeled tractors (30 horsepower and up) in the John Deere Waterloo Tractor Works, and nothing else. But this is a mammoth operation — the largest industrial employer in the state, with well over 6,500 employees currently, and probably the largest wheeled tractor plant in the world, with a daily capacity of 250 tractors.

Black Hawk County is one of the best possible locations for the production of these tractors, as far as the market is concerned. Over half of Deere's Waterloo output is shipped out on an overnight de-

livery basis by truck. Moreover, the company is enthusiastic about the quality of its labor supply, and raw materials, while not produced in the immediate vicinity, mostly require no more than an overnight haul. The physical works are in first-rate shape. Deere's immense foundry recently has been extensively renovated and its capacity doubled, and within the last three years a new assembly plant and power plant have been constructed.

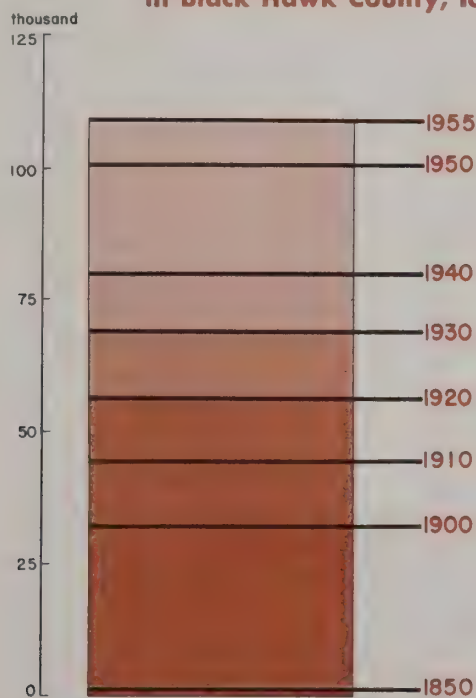
On the other hand, additional items of Deere's full line of farm equipment are not likely to be added to the Waterloo output. The Waterloo operation is even now felt to be close to the optimum size in terms of employment from the standpoint of efficient administration. And with the metropolitan area's economy booming, the amount of slack in the potential labor supply is small. Moreover, Deere occupies nearly all of its 140 acre site along the Cedar River. Major expansion would require filling in more of the bottom land already owned by the company; this is not an insuperable obstacle, for Deere, to achieve its present size, had to fill 54 acres in the past.

In short, what the Waterloo area can expect in the future from Deere's operations depends mainly on the prospects for the company's large wheeled tractors. What are they? Superficially, they might appear none too good, for official observers seem to anticipate a relatively unfavorable showing by American agriculture in the next few years.

However, the demand for Deere's Waterloo output depends not only on general conditions in agriculture, but also on the trends in the size of farms. As farms grow bigger, larger machinery is required. The trend toward bigger farms has been a long-term one, and a pronounced one, in the Midwest. Between 1950 and 1954, the average size of farm in major Midwest states increased from 5 to 10 per cent, and this movement will no doubt persist indefinitely, thus expanding the market for larger wheeled tractors. Moreover, the potential sales of tractors abroad are very large, for modernization of agriculture is receiving an increasingly high priority in underdeveloped countries. Even now, about a tenth of the tractors made in Waterloo are shipped to foreign countries.

Not the least important factor in the outlook is Deere's good competitive position in the industry. Deere is well entrenched, with a very widespread distribution organization and an outstanding reputation for quality products, as befits an organization whose founder "gave to the world the steel plow." All in all, while Deere's future expansion in the area is apt to be modest, it will remain a solid and sub-

**Population growth  
in Black Hawk County, Iowa**



stantial part of the community's economic base — the part that provides the largest number of jobs and pays the highest wages.

### **"Finer flavor from the land o'corn"**

Rath is one of the country's larger meat packers outside the "Big Three." Despite its size, this is a one-plant concern. But what a plant that is — one of the industry's newer, more efficient packing houses, with a slaughtering capacity of about 10,000 hogs, 1,600 cattle and calves and 2,000 sheep per day, currently employing about 6,000 people.

Waterloo has proved to be an increasingly suitable spot for meat packing. Raw materials — that is, livestock — are a high proportion of the total cost of the finished product. Moreover, profitability in the industry varies directly with volume, and volume depends largely on the availability of livestock. Both the cost and supply of livestock are sensitive to the relatively high costs of shipping stock from farm to plant. On the other hand, relative to the value of the shipment, transportation costs are less for processed meat than livestock. Large packing plants in any case have large and diffused market areas. So

in the meat-packing industry, location of packing operations is governed more by the location of the livestock supply than by the location of the customers.

Thus, the industry gradually but steadily has been shifting its operations westward—toward the livestock-producing areas. This shift has been made possible by the development of suitable truck transportation for livestock and refrigeration facilities for meat. Waterloo is in the middle of a very dense hog-producing area and is well placed with respect to the beef cattle-feeding areas. Thus, the basic supply factors favor Rath.

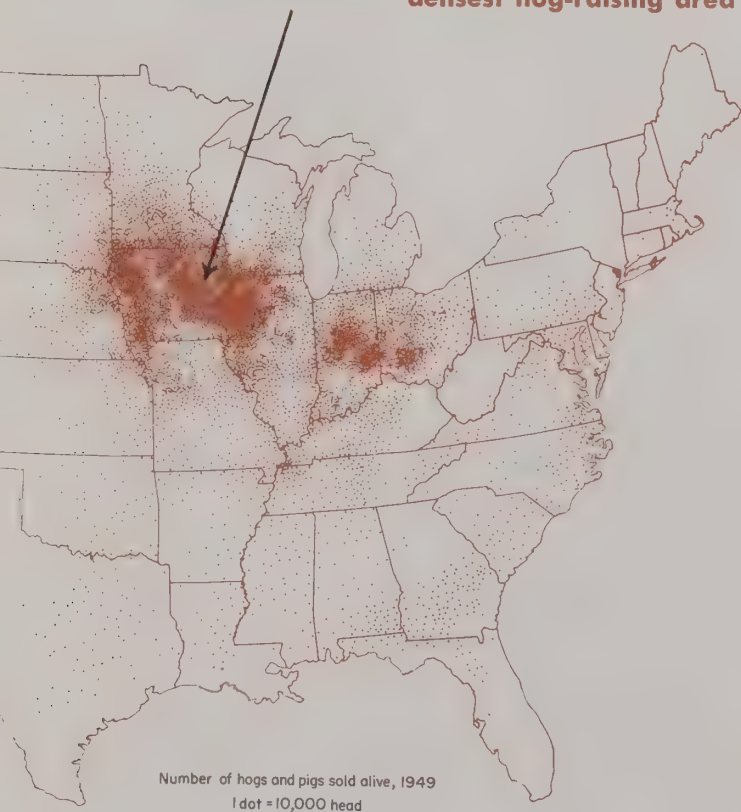
Rath's product lines and merchandising tactics also fit in well with long-term trends in demand. Rath carries processing activities far along toward the form in which meat is retailed and consumed, rather than relying on the sale of crude cuts in the wholesale meat trade. The company emphasizes canned items, sliced cold meats, quick frozen kitchen-ready items and other consumer packaged meats suitable for display in self-service retail counters. This both capitalizes on the strong trends to self-service food distribution and minimizing the housewife's work and enables the company to get across its brand name. And branding makes possible more effective consumer advertising.

Rath's, then, has been a growing business. Doubtless it will continue to be one in the future, with further increases in slaughtering capacity. Whether the expansion of pork production will be in Waterloo, as in the past, or at a new facility elsewhere in Iowa is uncertain. The hog population remains an important factor, for expansion at Waterloo, unless the hog population increases further, entails higher procurement costs as the company reaches out farther for livestock. On the other hand, centralization has significant administrative advantages. On balance, Rath is apt to prove a stable and moderately growing pillar for Waterloo's economy.

### **The lively plus**

The very existence of the "big two," with their large labor requirements and high pay scales, means that the area's other employers must hustle if they are to be successful. This they have done, and as a result, the Waterloo area has a number of firms with secure positions in highly competitive industries. Moreover, in a number of cases, the success of these small home-owned firms has been possible only through very resourceful adjustment to economic and technological changes which drastically cut into their sales. In these and other cases, Waterloo area "exporters" have done well because local

**Black Hawk County is in the midst of the densest hog-raising area**





## Jobs in the Waterloo area\*

	1955 (thousands)
Total .....	41
Farm machinery .....	7
Meat products .....	6
Other manufacturing .....	6
Construction .....	3
Transportation and utilities.....	3
Wholesale trade .....	2
Retail trade .....	7
Government .....	3
Business and personal services .....	4

\*Black Hawk County nonfarm employment

individuals have invented "better mousetraps" which can be sold profitably despite the fact that Waterloo is some distance from the principal markets for factory output. And the community has been able to keep and indeed attract resourceful and energetic businessmen mainly because they find it a highly congenial place in which to live.

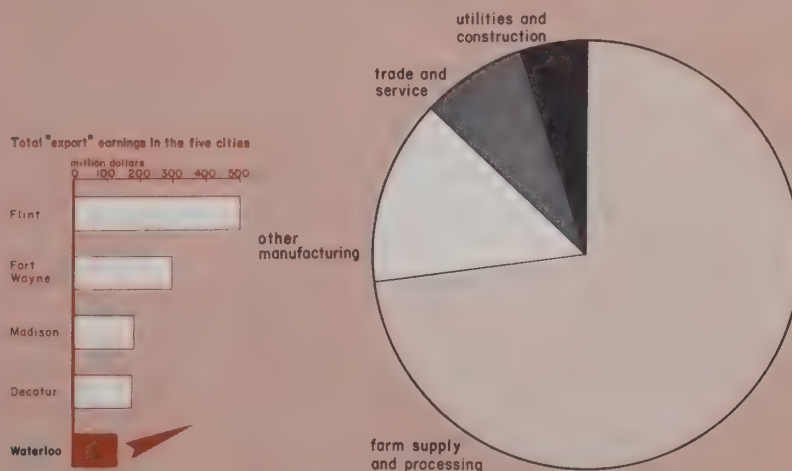
Take some examples. The Chamberlain Corporation, the area's largest firm outside the "big two," with employment of about 1,100 currently, has for some time concentrated on the production of wringers for washing machines. In the past five years, however, nearly all the rapid growth in the sales of washing machines has been in the more popular automatic washers. The relative position of wringer types thus has declined, but in absolute numbers wringer sales have been about stable. Chamberlain has a bit more than held its own. To adjust to this technological change—to provide for the firm's growth—Chamberlain has diversified. It has designed or redesigned a number of products with successful results—for instance, metal awnings and aluminum wire refrigerator shelves. Also, the company purchased the Dobbins Manufacturing Company of Elkhart, Indiana, shortly

after Chamberlain itself had been returned to local ownership in 1954 after a long interlude of absentee ownership. The Dobbins equipment, for producing chemical sprayers and dusters, was moved to Waterloo, and Chamberlain expects to emphasize hand sprayers to tap the home garden market, which the move to the suburbs is expanding.

The Hinson Manufacturing Company presents another case of successful adjustment to changing times. Hinson a few years back was a major producer of original equipment seat covers for new cars. The widespread use of new materials in automobile upholstery has shrunk this market considerably. Hinson has responded by pushing its other lines of quality textile and leather goods—automobile bug screens, tractor accessories, golf bags, hunting and fishing garments, work clothes, camera cases, and luggage. Well-designed, well-merchandised products, made with the newest types of equipment have enabled the firm to meet the challenge of change.

Another "adjuster" has been the Waterloo Valve Spring Compressor Company. When the valve spring compressor business died out as automobile engines improved and needed less valve grinding, the firm energetically turned to the production of tackle boxes, tool boxes, industrial cabinets, and similar products. These are generally expanding lines and this company is the largest producer and a low cost one. Still another major change in product lines, this one over a longer period, took place in the case of the Herrick Refrigerator Company, which years ago made wooden household ice boxes. When this business

## Where Waterloo's "export" earnings come from





**A few firms generate the great bulk of Waterloo's "export" earnings**

died out, the firm went into the manufacture of commercial refrigerators, principally for food-serving establishments, and the production of millwork and fixtures. More recently, it has become a wholesaler and jobber of building materials.

### Great expectations

Not all the area's smaller firms have had to be "adjusters." A few have been in growing fields since their inception. The most spectacular growth has been in the Titus Manufacturing Corporation and its corporate offshoots. The enterprise began in 1946 with 4 employees and 13,000 dollars in capital; it now has 250 employees and a net worth of 600,000 dollars. The main product is aluminum registers and grilles for commercial and industrial air conditioning, which is a field with very bright prospects indeed. A research oriented company, it hopes to stay ahead of its competitors and may very well develop into one of Waterloo's major "exporters" in time. The Construction Machinery Company, a producer

of machinery for cement mixers and pumps for oil drilling and moving, irrigation and sundry construction jobs, is another outfit with great expectations.

This hardly exhausts the list of "exporters" in Waterloo and Cedar Falls with good or great prospects. Cedar Falls, for example, houses the Viking Pump Company, which produces 44 different types of pumps, most of them used in petroleum marketing, and the Clay Equipment Company, which makes barn and farmyard equipment.

Waterloo is the chief distribution center for northeast Iowa. Waterloo and Cedar Falls thus provide all sorts of services to the surrounding area. Among the most important service activities is Iowa State Teachers College in Cedar Falls. An institution serving the entire state, the college is perhaps the largest single non-factory employer in the area, with an annual payroll close to 2.5 million dollars. Other "exporters" of services to nearby counties include the four railroads and the utilities serving the community and its retailers and wholesalers.

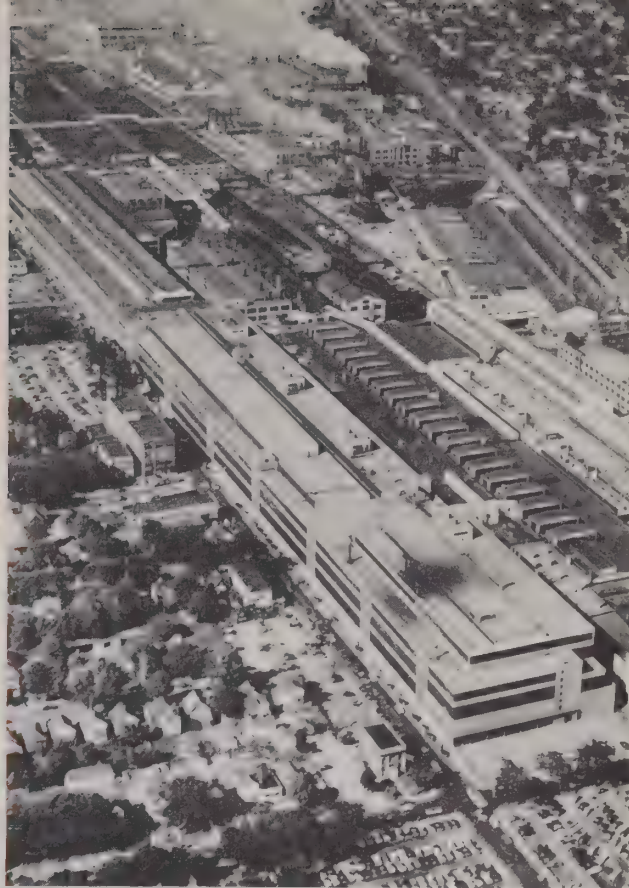
### Indigenous expanders

In the past, most of Waterloo's growth has been due to the expansion of Deere and the indigenous enterprises, rather than to the location there of new branch plants of large national corporations. The area does hold quite a few attractions for national corporations seeking new locations for branches. But its attractions are not substantially greater than those of other cities, at least not so much greater that new branch plants are a certainty for the future. Since its very largest "exporters" are apt to be modest in their expansion locally, the community can look for the major share of its growth to the smaller home-owned companies.

By and large, the growing smaller companies are manufacturers of durable producer and consumer goods: wringers, aluminum shelves, metal awnings, sprayers, cement mixers, aluminum grilles, pumps and so on. And, for the most part, these durables are not for use in farming. The relative importance of nonagricultural durables, while still small, is thus growing in the area. The country's demands for industrial and consumer hard goods have been exceptionally fast-growing, and this is apt to continue.

So Waterloo's distinctly indigenous growth may be to the area's advantage. Perhaps a city with home-owned businesses can hope that they will respond especially vigorously to protect local jobs. For the past has demonstrated the ingenuity and energy of local entrepreneurs; the community can expect a similar performance in the future.





## FLINT

### An exception to prove the rule

Two distinct trends have been evident in urban industrial development in the Twentieth Century. One is the tendency of individual metropolitan areas to develop more diverse economic structures, producing a wider variety of goods and services. The other has been the geographic decentralization of major industrial firms. Economic development in Flint has run counter to both of these trends, yet by most measures — population, bank deposits, new housing — this area has shown the most rapid growth of any of the medium-sized Midwestern cities.

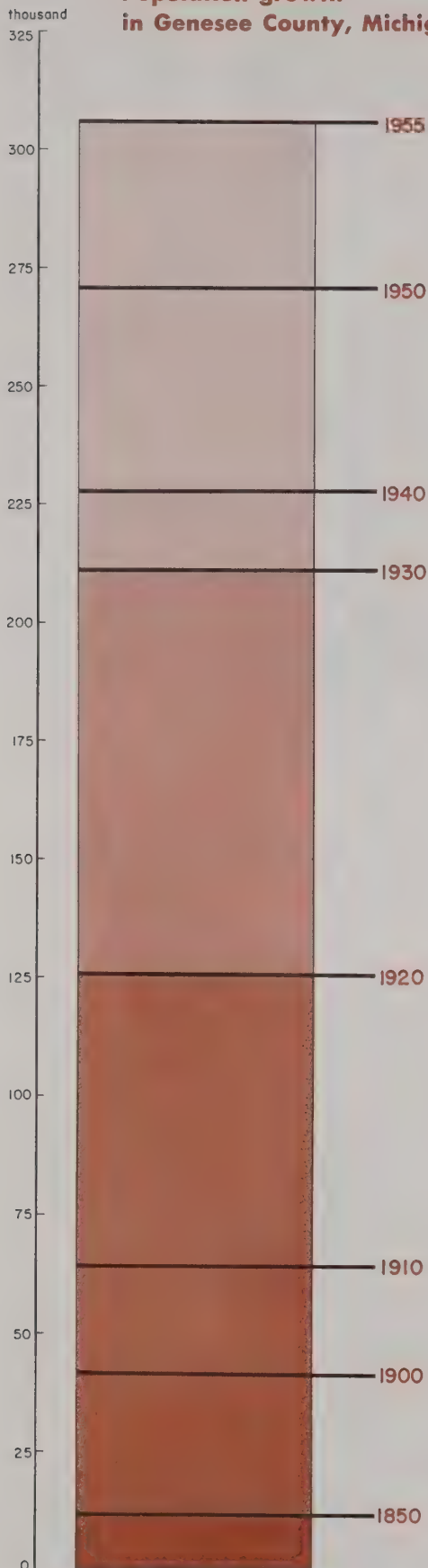
The Flint economy, probably to a greater extent than that of any other city of comparable size, can be described in a single word. That word is automobiles. Two out of every three people working in Flint are employed by the General Motors Corporation. Moreover, GM accounts for almost all of the area's earnings resulting from sales of goods and services outside Genesee County. This one firm brings in more than 95 per cent of all wages, salaries and shareholders' returns earned through external sales by Flint manufacturers. Even if earnings from nonlocal sales by wholesale and retail trade, service, utility and government establishments are reckoned in, GM's share of the community's total

"export" earnings would still be more than 90 per cent.

The Flint economy is not only overwhelmingly concentrated in General Motors operations, it is by and large in a single phase of the company's activities, namely passenger cars. While the company has extensive operations in motor trucks, household appliances, diesel locomotives and engines, and jet engines and other military items, these activities are represented only to a minor extent in Flint, if at all. Finally, to a considerable degree the Flint operations of GM are concentrated on two specific automobiles — Buick and Chevrolet.

There is no question about Flint's being a very highly specialized and heavily industrialized economy. This impression is apparent to the most casual observer of the community. Nevertheless, it would be inappropriate to come to any pat conclusions about the area's prospects for growth and stability based solely on the fact of this concentration. Changes in the nation's economic picture may tend to be intensified in Flint's response. On the other hand, its high income level results in large measure from its efficient specialization in what has proved to be a very profitable activity in the postwar period. Before any definite conclusions can be drawn about

## Population growth in Genesee County, Michigan



Flint, the details of its economic structure must be examined more closely.

### "Better Buy Buick"

As long as this slogan holds up, Flint will do all right. So far as most residents of the area are concerned, this famous by-line could be rephrased "Better Buy Flint." The production of Buick automobiles is the biggest single GM activity in Flint. It is also the oldest, dating from the formation of the Buick Motor Car Company in 1903.

Needless to say, the conspicuous success of Buick in the automobile market has been a major factor in Flint's expansion in recent years. This growth is expected to continue. From an output of 500,000 cars in 1950, Buick has expanded to an annual rate of 750,000 currently and expects to hit a million by 1960. Moreover, every indication is that this expansion will continue to be focused in Flint.

Buick's production facilities probably are concentrated in its home city to a greater extent than those of any other volume producer of automobiles. All of its production of engines, frames and component parts, as well as its major assembly plant, is located in Flint. Centralization of facilities, moreover, is especially significant in the case of Buick because of the high proportion of components it manufactures for itself.

Almost as important as Buick are the various installations of the Chevrolet Division. While headquartered in Detroit, Flint is one of its most important operating locations. The modern Flint assembly plant assembles passenger cars and some motor trucks for a wide area. In addition, two important manufacturing plants of the Chevrolet Division are located there.

The original Chevrolet plant in Flint was built well before World War II and is located in the heart of the city. This installation currently produces six-cylinder engines, engine parts and a wide variety of sheet metal components for cars and trucks. Large as this plant is, it does not satisfy all the Chevrolet Division's current needs for six-cylinder engines. Yet, until a few years ago, this facility was able to house all Chevrolet's manufacturing and assembly operations in Flint.

A newer and larger facility is the Van Slyke Road plant, located at the edge of the city. Produced here are a major share of Chevrolet's V-8 engines, frames and stampings. The modern factory housing these operations, replete with automation and other modern industrial techniques, represented a truly significant addition to Flint's industrial plant, even



### Jobs in the Flint area\*

	1955 (thousands)
Total .....	139
Motor vehicles and parts .....	82
Other manufacturing .....	5
Construction .....	7
Transportation and utilities .....	4
Wholesale trade .....	3
Retail trade .....	19
Government .....	5
Business and personal services .....	14

\*Genesee County nonfarm employment

relative to the vastness of total GM development in the city.

Recent growth of Chevrolet in Flint, moreover, is doubly significant in light of the fact that it does not represent merely an expansion of the Division's previous operations there, but rather a decision to locate entirely new activities here. V-8 engines were first offered on the 1955 models, and frames were previously supplied by vendors. Thus, recent developments would indicate that Chevrolet as well as Buick is sold on Flint as a good place to produce cars.

Although under a separate organizational setup, the Fisher Body facilities in Flint go hand in hand with Buick and Chevrolet so far as the area's industrial structure is concerned. Plant #1 produces the bodies for Buick assembly in Flint, and Plant #2 produces for Chevrolet. This is the typical GM arrangement where a separate but nearby plant produces "Bodies by Fisher" for the various Chevrolet, Pontiac, Buick, Oldsmobile and Cadillac assembly plants wherever they are located.

In addition to these two basic activities, the Fisher Body Division also operates a factory at Grand Blanc, a few miles southeast of the city. It was built as a tank plant during World War II and was also used for subsequent military production, especially during the Korean war. Recently, however, it has been converted to a stamping plant for automobile parts, largely for use in Flint. With this change-over, the demand for military goods has become a decidedly marginal factor in the Flint picture.

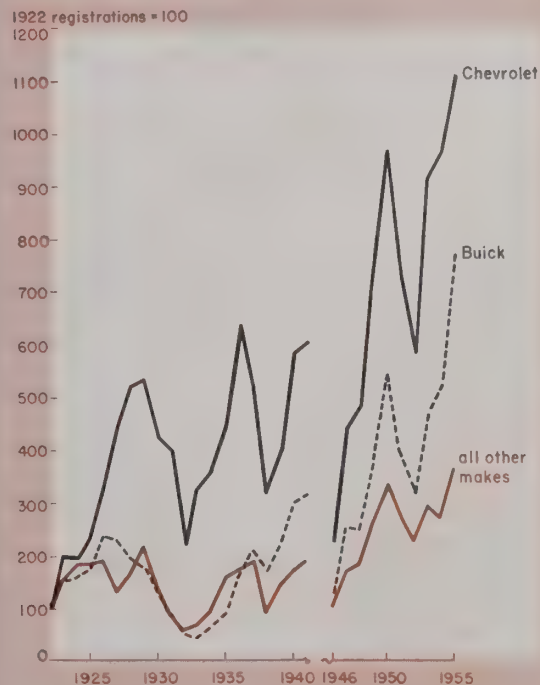
### Autos, autos, everywhere

In addition to the actual production of motor cars, GM has a number of divisions which produce various components and accessories. Two of these

operations are in Flint. The biggest of these is the AC Spark Plug Division.

Like Buick, AC had its beginning in Flint and still retains its headquarters there. Founded in 1908 by Albert Champion as the Champion Ignition Company, its sole product was spark plugs. Over the years, however, it has undertaken the production of a wide variety of other automotive items which now account for a significant proportion of the Division's total operations. Among the more important items manufactured in AC's two Flint plants are air cleaners, gauges, instrument panels, pumps, speedometers and oil filters.

During World War II, AC went into the production of defense items in a big way, including machine guns, bombsights and automatic pilots as well as spark plugs for military engines. Its peak war-time employment in Flint reached 19,000, about 5,000 higher than the current level. Military goods are still a fairly important part of AC's operations, but much of the defense production is at the Milwaukee plant.



**Autos "made in Flint"  
have been strong competitors**

A significant aspect of AC is its big replacement business which is an important factor in its reputation as "a steadier place to work." Its stability is also affected by the fact that it sells not only to other GM divisions, but to the entire auto industry and to a certain extent to other industries. Probably every car and truck in the United States is equipped with one or more AC products. In addition, its spark plugs are used on motor trucks, commercial vehicles, aircraft and stationary engines.

Another way in which AC serves as a balancing factor in Flint's economy is through its employment of women. More than half its work force is female, in marked contrast to the auto divisions. To a large extent, this reflects the smaller size and relative ease of handling of most AC products.

The other automotive supply facility of GM in Flint is the Ternstedt Division plant. While this division is headquartered in Detroit, its major production facility is in Flint. It produces a large proportion of the hardware and interior trim for all of the GM cars. This operation, which currently employs about 9,000 people, was transferred from Detroit a few years ago, giving additional testimony to GM's confidence in Flint. A minor Ternstedt Flint activity is output of replacement hardware for GM appliances.

Still another GM activity in Flint is the General Motors Institute. It has more than 2,300 students in Cooperative Engineering, Business Administration and Dealer Cooperative programs working toward degrees. In addition, more than 30,000 people a year participate in its training programs in Flint and at

GM plants throughout the nation. Total employment of the institute is around 500.

### The "independents"

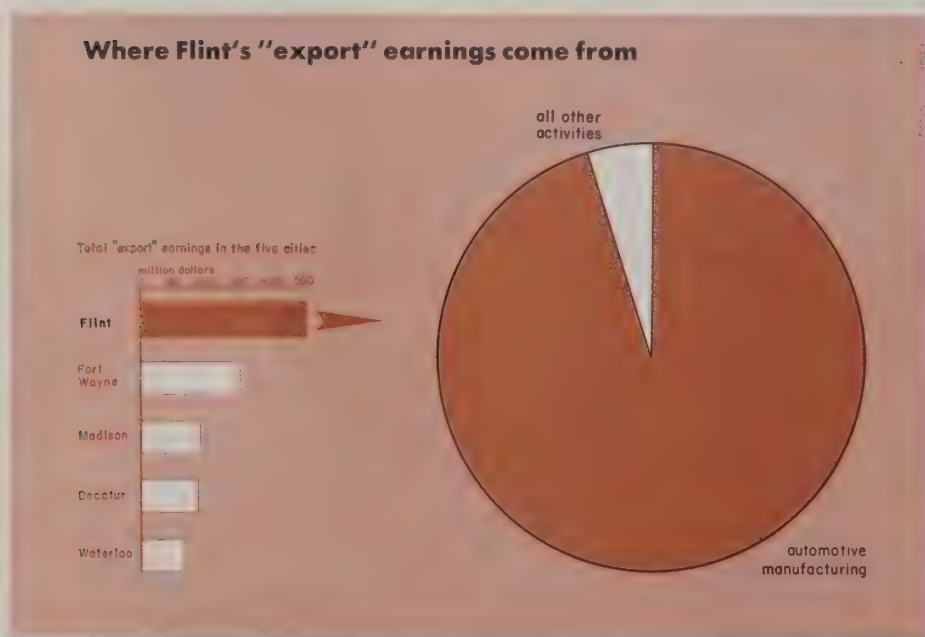
Because of GM's size, it is hard for any other manufacturing company in Flint to appear very significant. Nevertheless, there are a number of other firms employing several hundred people. However, as might be expected, they are primarily oriented to the auto industry.

Du Pont has a paint factory in Flint which employs almost 500 people. This plant produces all of the air-dry lacquer for Du Pont's Midwest market. In addition, the Flint plant produces Du Pont's full output of auto specialties which include various kinds of waxes, polishes and cleaners. The main product of the Standard Cotton Products Company is bats and padding for automobile seating. Similarly, most of the output of Flint's largest foundry, the General Foundry and Manufacturing Company, goes to GM. General Foundry and Standard Cotton employ 300 and 400 people, respectively.

Direct dependence on the auto industry is apparent even outside of manufacturing enterprises. The bulk of the nonresidential construction, as would be expected, involves GM. The biggest building contracting firm in Flint does more than half of its business with GM. An important feature of industrial specialization is its effect on financing nonresidential construction. How to finance industrial capital formation is a problem which simply does not exist for Flint as a community. Moreover, in recent years

Flint has received a large share of GM's huge successive programs of investment in expansion of facilities.

Probably close to a thousand people are involved in transporting automobiles by trailer carrier in addition to those working on rail shipments of parts and equipment. These rumbling carriers are an omnipresent sign of the automobile in Flint, both setting out for all points in mid-America with finished Buicks and Chevrolets and toting bodies cross-town from Fisher Plant #1 to Buick.





## The local sphere

Flint thus has few "export" activities not tied to GM in some way. Moreover, fewer people in Flint are engaged in "taking in each other's washing" than in the other four cities. In fact, on a per capita basis, Flint's income from local sales of goods and services is only about three-fourths as great as in the typical Midwest industrial city. This is not because people in Flint have less to spend or spend their money less freely. Actually, incomes are higher in the area. Retail sales per capita, even excluding automobile sales, were higher than in any other medium-sized Michigan city last year.

What happens is that Flint "imports" the goods its people consume in a more finished state than elsewhere. The area is distinctly "underdeveloped," compared with the four other cities, in manufacturing for the local market, in wholesale trade and in services of many types. For example, Fort Wayne, which has about two-thirds Flint's population, has 10 per cent more people employed in serving the local market — four times as many in local manufacturing activities and a third more in wholesale servicing of local retailers. This situation may not continue for long. The Flint area has grown very rapidly, and the local activities have hardly had a chance to keep pace. As Flint continues to grow, more and more people will find it worth-while to go into businesses which primarily serve the local market. This then is a growth prospect for the community, induced by the expansion of "export" industries but enhancing Flint's prospects nonetheless.

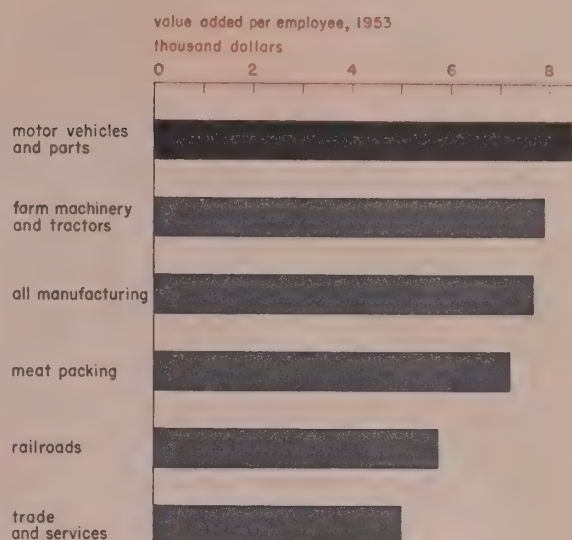
## Looking forward

Flint's future like its past is inevitably tied up with General Motors. In recent years the company's older activities in Flint have expanded at a tremendous pace and new ones have been introduced. The vast size of General Motors makes any discussion of possible diversification in Flint's economic structure pretty much beside the point.

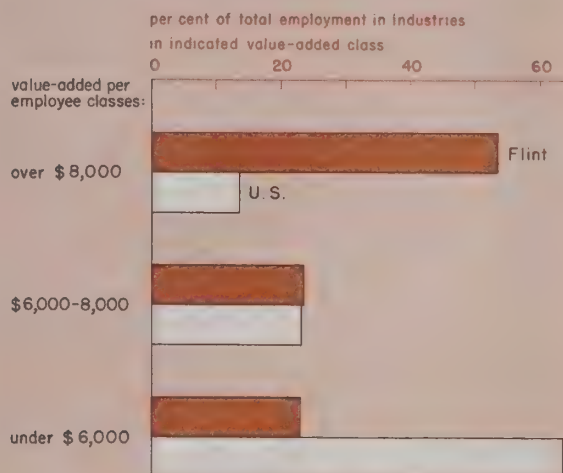
There are two strong incentives for GM concentration in Flint. One is the increased managerial efficiency resulting from closer control and easier communication. The other is the saving of transport costs on cross-hauls of component parts and accessories. These two forces, however, are in no way peculiar to GM or to Flint. They are operative in most large manufacturing concerns. Yet probably in no other city of comparable size in the United States has any single firm attained the industrial supremacy which GM has achieved in Flint.

## Flint's "export" earnings are high . . .

because the automobile industry is a relatively high value-added industry . . .



and Flint's employment is markedly concentrated in autos and hence in high value-added lines.



Source for value-added figures: Annual Survey of Manufactures, 1953 and National Income Supplement, 1954

Ordinarily the expansion of an individual enterprise in any one location is limited by the extent of the area's labor market. Moreover, Flint probably has as little in the way of a surrounding agricultural hinterland not also tapped by other nearby cities from which to draw a supply of labor as any Midwest metropolitan area. In spite of this, GM employment in Flint has grown to well over 80,000

workers. The difference is that GM is so big that it makes its own labor market. Its national reputation and the high wages in the auto industry enable it to attract workers from all parts of the country, if need be, when necessary for a planned expansion in any particular place. As a truly nation-wide firm, GM operates largely in a national labor market.

In past years, the nature of its labor demand has tended to make Flint a more or less transient community. In recent years, however, this aspect of the city's environment has been modified. Production and hence earnings have been stabilized seasonally. Also, the high incomes of the workers have stimulated home ownership which is a powerful inducement to staying put.

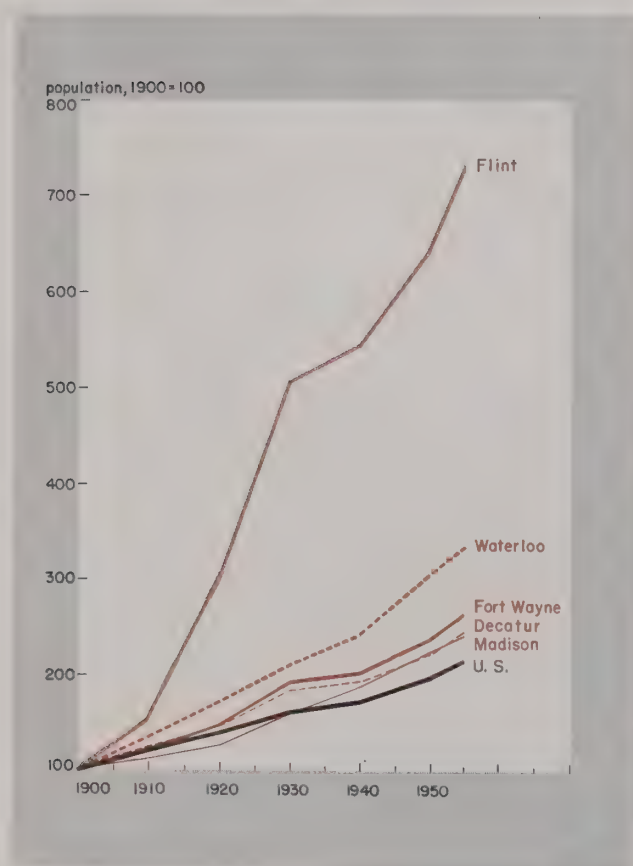
Implications for an area's stability are often sought in an analysis of its economic structure. Even if the nation's economy indefinitely continues to operate at high levels, with downturns limited both in duration and severity, individual industries or segments can suffer wide fluctuations or in some instances pro-

tracted slumps in demand. Textiles and agriculture are two examples of less-favored industries in a generally prosperous environment. A highly specialized area is inevitably more in danger from possible developments of this kind. Moreover, specialized areas are popularly regarded as being more vulnerable to the swings in the nation's economic activity than more diverse communities. This is the familiar "all your eggs in one basket" argument. If an area has important representation in many different industries, it is argued, chances are that only a small part of its total employment will be affected at any one time by the ebb and flow of demand for particular products. The community will be more apt to take up the slack caused by a decline in a few lines by expansion in others.

### Stable if diverse?

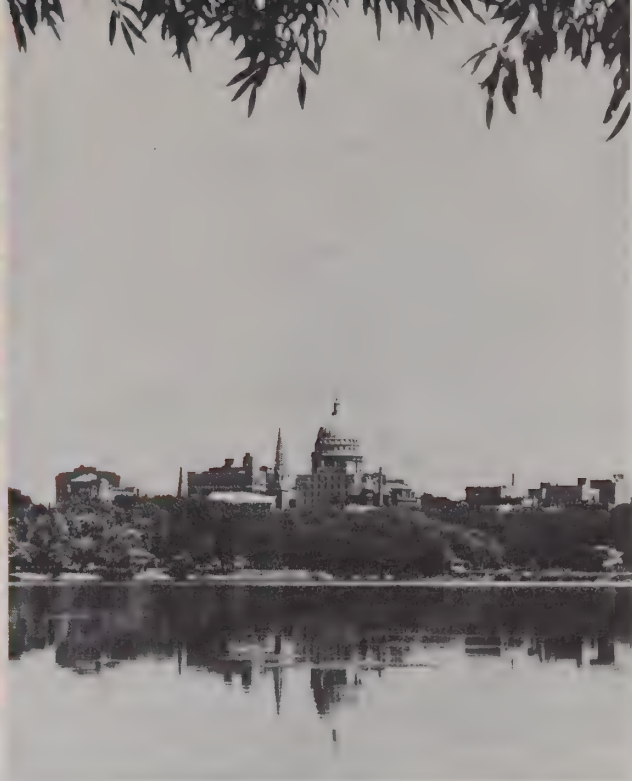
Actually, much diversification is more apparent than real. Output of a large number of different products will do little to enhance total stability if the demand for them responds to similar influences, like producers' durables, for example. Furthermore, if cyclical stability is the major goal of an area's economy, residents would be better off with complete concentration in the most stable industries, like baby food or caskets. The trouble is that these kinds of activities may not and in most cases will not be the most profitable for that town both in terms of wages and proprietary earnings. Thus, in formulating goals for most areas, the problem frequently resolves itself into a choice between profitable but less stable and less profitable but more stable industries. Diversification is only one way of mixing these two strategies. It is not the way of Flint. Here the accepted solution is specialization in a single industry which has a very high value-added-by-manufacturing. Whatever price might have to be paid in terms of stability is discounted by GM's record of success in selling its output.

Profitability and stability are not the only considerations. Diversification is also a hedge against major technological changes. The adverse effects of specialization in the coal industry are evident in many communities, for example. On the other hand, a less-specialized community has less to gain from spectacular technical advances in one or a few of its industries. Like all hedges, diversification costs something, and only the future can tell for sure whether or not it is worth the price. In any respect, Flint is no hedger. The community has placed its bets on the belief that, "when better cars are built, Buick will build them."



**Flint's growth is tremendous, even compared with other fast-growing Midwest areas**





## MADISON

# Blackboards, test tubes and typewriters

In a certain sense, the nature of Madison's economy is a measure of the advanced state of our national economy. When a country is really advanced, its efficient extractive and manufacturing industries produce sufficient income to support a vast superstructure of service activities of all kinds. Every city produces some services for its own consumption and, to a limited extent, for "export." Madison, however, is a regional and national service center *par excellence*.

To be sure, manufacturing activities are important to the citizens of Dane County. All Midwest cities have some factory output, and Madison's factories produce almost one-half of its "export" earnings. But the really distinctive thing about Madison is the extent to which it sells government, distribution, medical and other services to the rest of Wisconsin and indeed to the rest of the country.

There are other cities in the Midwest and elsewhere in the country which have major universities. There are 47 other cities which serve as state capitals. There are other cities with important military installations and major Federal civilian establishments. There are other cities which are regional medical centers. There are other cities which serve as trading centers for a broad rural and small town hinterland. But few cities provide all these services simultaneously, as does Madison—hence, the service character of Madison's economy.

The University of Wisconsin is now and is likely in the future to continue to be the most important single enterprise to the Madison economy, not only in terms of employment, but also in terms of the income its activities in Madison produce. Employment by the university and sales by Madison businesses to the university itself and to students whose home is outside the metropolitan area together produce —

1/12 of the community's total income;

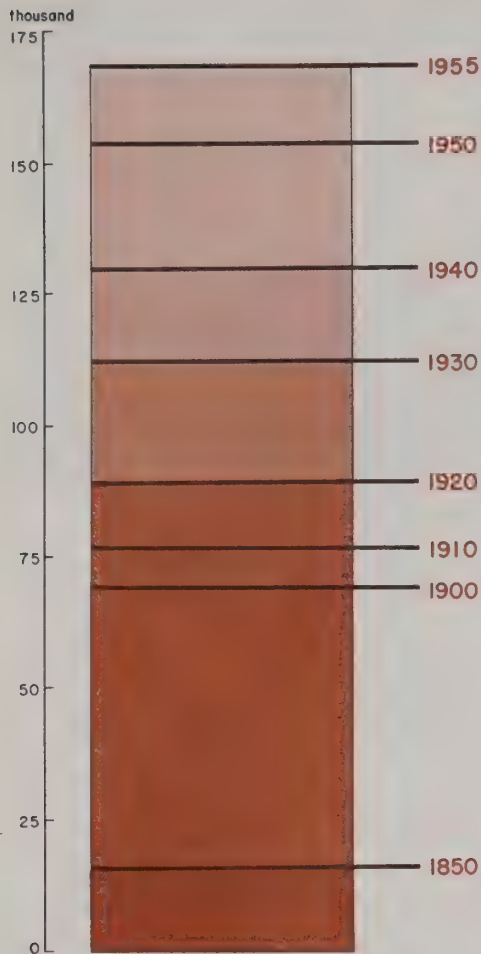
1/7 of the community's "export" earnings;

1/2 of the community's "export" earnings from government activities.

Even these figures understate the university's central importance to Madison. The university's presence in Madison has been the major drawing card for most of the other governmental agencies which have located in Madison over the years. In fact, nearly all governmental agencies in Madison whose locations are not automatically determined by the nature of their jobs (every city has a post office, for instance) are there because of the university — that is, with the signal exception of the state capital itself, which preceded the university's founding and itself accounts for the school's presence in Madison.

The university has been the most persistently growing major element in Madison's economy. Back in the 1920's, with university enrollment much smaller — less than 10,000 on the Madison campus,

## Population growth in Dane County, Wisconsin\*



\*Excludes nonresident students

as contrasted with over 15,000 now—and with fewer Federal activities, the government sector was a much smaller part of the total. The school's growth has meant, of course, a larger payroll for Madison residents—close to 24 million dollars a year currently—as well as larger purchases from local businesses (over 1.5 million dollars). Moreover, there are now about 12,000 students from outside Dane County, whose expenditures swell Madison incomes.

Until recently, the university had not been able to match its growth since the Thirties with a building program required to handle the added load. Thus, in the past few years, it has had a lot of catching up to do, and university construction—done with local labor and mostly by local firms—has provided a substantial additional boost to the area's income. Close to 8 million dollars' worth is under way at present, and another 16 million dollars' worth is ready for drafting. Since 1950, the face of the

campus has changed very much indeed, as old grads will testify, and more changes are in the works.

The prospects are for continued rapid growth in college enrollment nationally. University of Wisconsin authorities anticipate that enrollment on the Madison campus will rise by another 1,500 within three years and grow more thereafter. Most large state universities are actively considering or planning decentralization of undergraduate education by expanding existing state liberal arts colleges elsewhere in the state or setting up new ones. In all likelihood, this is in the cards for Wisconsin, too. However, Madison will no doubt remain the state's largest undergraduate college as well as its center for graduate and professional schools. In all, this means that enrollments in Madison will continue to grow, but less rapidly than the national totals.

### Expanding capital

The state government, aside from the university, is about two-thirds as important in payroll terms but, being less of a space-user, is somewhat less noticeable. Its growth has been as persistent, however. Thirty years ago state nonuniversity employment was only one-fourth as great as it is now. The state capital functions also have attractive power for visitors and temporary residents, especially during the biennial legislative sessions, which last six months. In these odd-numbered years, about 1,000 legislators, lobbyists and others pour into the city for the session and swell the sales of local businesses.

The location of new Federal activities in Madison—there mostly because of the university's presence—has accounted for a goodly portion of the total growth in the importance of government as a source of Madison's income. The most important of the Federal establishments is Truax Air Force Base, which was closed down after its World War II service and reactivated in 1951 as a fighter-interceptor base. Currently, Truax is in the process of becoming a major headquarters for the Air Defense Command for this part of the country, assuming functions which are now performed at a base in the Detroit area. The fighter base mission and the air defense headquarters mission are about equal in importance.

In addition to contributing to Madison's economy by employing around 200 civilian employees, the base itself purchases food, supplies, repair services and so on amounting to around 1.5 million dollars a year in Madison, and military personnel spend well over 3 million dollars a year in the city. Moreover, the base has a substantial construction program to



accommodate both its existing functions and the ones it is newly assuming, and this work is being performed by local contractors with local labor. The new functions are expected to produce a 5-10 per cent increase in payrolls, employment and other local outlays each year for the next three years.

Likewise, the U. S. Armed Forces Institute (established in Madison in 1942), the Forest Products Laboratory of the U. S. Department of Agriculture (in Madison for 45 years) and the Veterans' Hospital, a regional tuberculosis hospital opened in 1951, appear to be permanently ensconced in Madison. Together they employ close to 1,200 people with an annual payroll in excess of 5½ million dollars. Although Federal activities in Madison have grown rapidly in the past, especially during World War II when they were even bigger than they now are, their future growth on the whole is apt to be rather moderate, for the Federal Government's over-all activities appear to have stabilized. This, then, is an element of stability without strong growth prospects.

**Madison's other services**

Hospitals are a significant part of government activities in Madison and have been included in the preceding discussion. Wisconsin General Hospital, run by the University in connection with the medical school, Mendota State Hospital (a state mental hospital) and the VA Hospital together produce about one-seventh of "export" income from government activities. But there are a number of other major medical establishments, all serving substantial numbers of patients from outside the metropolitan area. In total, Madison is an important medical center.

Another specialized type of service activity com-

prises the large number of nonprofit institutions which make Madison their headquarters. Most are the Wisconsin state offices of organizations like the Farm Bureau, and their counterparts can be found in other state capitals. A few, like the Credit Union National Association, are unique to Madison.

Close to 21,000 people are employed in wholesale and retail trade, financial firms and a variety of personal and business service establishments. This is over a third of the area's total employment and accounts for over a third of its total income. Most businesses in these industries sell their wares mainly in the local market — in total, about 80 per cent of their sales are local in nature. However, even this 20 per cent "export" figure is higher than in most Midwestern cities of comparable size. As noted earlier, the distances between Madison and cities which are effective competitors for wholesale and retail trade are greater than in the case of many other Midwestern cities. This is not true as one moves east from Madison, but rather as one moves to the west and north. In general, the trading area for Madison wholesalers and retailers extends only as far as Cambridge and Edgerton on the east (only 30 miles away), but as far as Wisconsin Dells, LaFarge, Platteville and Darlington in other directions. Madison's competitors — cities like Dubuque and LaCrosse — are smaller cities, with less highly developed trade firms. As a result, some Madison stores make as much as a third of their sales to people outside the metropolitan area.

**Meat and machine tools 930275**

As Midwestern cities go, the Madison area has few very large factories, although factory employment in Dane County is about 13,000 in total. Only three manufacturers employ over 1,000 in the area. However, the four biggest firms account for three-fifths of the "export" earnings from manufacturing. Much the largest is the Oscar Mayer meat-packing operation, with a third of the total manufacturing employment. Oscar Mayer slaughters hogs, cattle, calves and sheep, in that order of importance, in Madison. The Madison plant and its employment have grown every year since the inception in 1919, by an average of 5 per cent per year; employment, for example, tripled in the Twenties, then again in the Thirties and doubled in the Forties.

The company expects to continue to expand in Madison, though at a much more moderate rate. The Madison plant is a good one, the labor supply adequate and the supply of cattle and calves near at hand, but the hog population is considerably more

**Jobs in the Madison area\***

	1955 (thousands)
Total .....	62
Meat products .....	5
Other manufacturing.....	9
Construction .....	4
Transportation and utilities.....	4
Wholesale trade .....	3
Retail trade .....	12
Government .....	15
Business and personal services .....	10

\*Dane County nonfarm employment

dense elsewhere. Hence, the company's greatest expansion is apt to be in locations closer to the center of the hog population and nearer to growing market areas distant from the Midwest. Over-all, Oscar Mayer has contributed tremendously to the area's growth in the past and will be a major stabilizing force in the future.

The next biggest manufacturer, the Gisholt Machine Company, specializes in machine tools of the type used to machine rotating parts — balancing machines, turret lathes, automatic lathes and so on. An important part of its output is sold to the automotive and aircraft industries, and a good part is sold outside the United States. Looking at it over a long span of years, the machine tool industry is a growing one, along with the metal-working industries it supplies. Gisholt is well situated to take advantage of this growth, especially since the company has no serious competitors for its balancing machine business which is the biggest single part of the total.

However, the operations of metal-working firms fluctuate over a wide range. Thus, the demand for specific machine tools may readily expand or contract in response to the business cycle, defense requirements or changes in consumer demand for particular products. Gisholt employment was 1,000 in 1929; only a little over 100 in 1933; 3,300 at the peak of World War II; and about half that now. With business plant and equipment spending nationally expected to be fairly high for the next few years and with the defense program relatively stabilized, however, the immediate prospect is for stability in

the industry. Replacement requirements alone for machine tools should be high, and Gisholt's employment may well be stable in the next few years at least. Here then is an element of growth, but perhaps some instability, in Madison's economy.

### Batteries and sutures

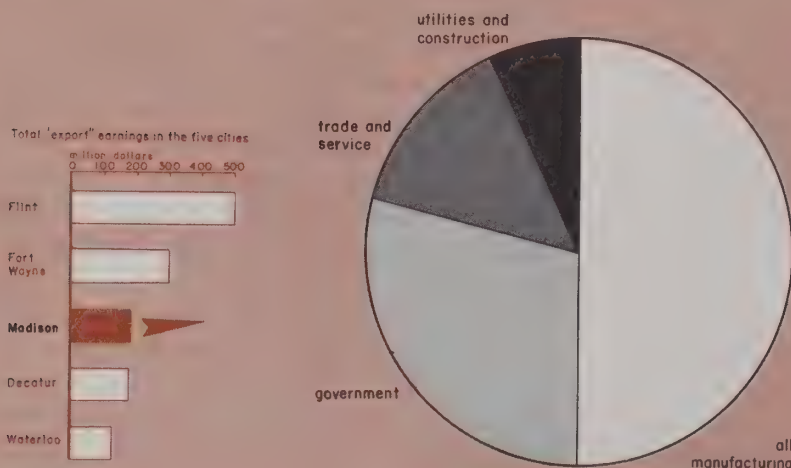
The Ray-O-Vac Company, which manufactures all types of lighting batteries, has its home offices and plant in Madison. The Madison plant produces Ray-O-Vac's Leakproof flashlight batteries and six-inch dry cell batteries.

Technological changes have accounted for much of the swings in Ray-O-Vac operations in Madison. During World War II, like most firms, it expanded greatly to produce military equipment and gained fame for its plan of paying its workers off after each shift, to encourage part-time workers. Since both batteries and the materials which go into them are heavy in proportion to value and thus bear high transportation costs, Ray-O-Vac has decentralized as it has expanded its output. Today, the company's plants are spread from Massachusetts to Tennessee to Oregon and in a number of foreign countries, largely to serve regional markets to which shipments from Madison would be uneconomic.

The Ohio Chemical and Surgical Equipment Company, a division of the widespread Air Reduction Company, is the fourth of Madison's "big four" industrial establishments. The company's customers are hospitals, for it makes in Madison (which is Ohio Chemical's headquarters) anesthetic and therapeutic apparatus, surgical

sutures and hospital furniture. Recently it has reduced its Madison output of heavy hospital equipment, for which high transport costs are a factor, and very much expanded its production of surgical sutures. In the past decade, the Madison operation has grown substantially and will probably continue to grow as the output of sutures and the demand for other individual items in the line expands. The uncertainty of defense orders which make up part of the business is offset by the large volume of hospital

Where Madison's "export" earnings come from





construction in progress or planned by public and private agencies throughout the nation.

### Beauty, growth and stability

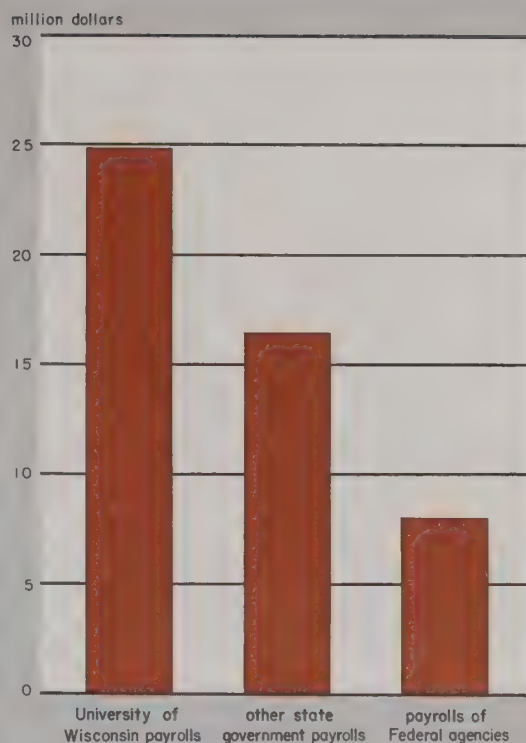
What are the consequences of Madison's distinctive economic structure? As travelers know, the most noticeable thing about Madison is its beauty, which is no doubt mostly the product of the area's superb natural setting but also is furthered by the absence of many unsightly large industrial space users.

Somewhat more to the point, the service character of Madison's economy has affected the area's growth and stability markedly. The demand for the services Madison sells has grown very rapidly in the recent past and is apt to grow at least as rapidly in coming years. For example, outlays on medical services have grown by leaps and bounds, in part because medical services have become increasingly complex and hence costly, in part because many medical problems have yielded to the assaults of research, and in part undoubtedly because citizens and governments alike seem to place a higher priority than ever before on medical research and medical care. Total public and private expenditures on medical services are close to four times as high as 25 years ago, and the rate of growth is not abating.

Then too, the size of state government programs has been steadily growing recently, in response to the needs of a growing population and an expanding economy. If anything, state and local government services are underdeveloped relative to the rest of the American economy, and thus the growth potentials here too are large.

Madison's economy is not only a growing one, but also one which is relatively insulated against the impact of business fluctuations elsewhere in the economy. In this respect Madison is perhaps better off than most places. This is because the demand for services — particularly government services of the type Madison specializes in — is more affected by long-term trends than short-run swings. For example, during 1954, a recession year for the country (though a mild one), our national income declined slightly. The income produced by the country's primary and secondary industries — agriculture, mining, manufacturing and transportation — declined by around 6 per cent, with most of the decline centered in manufacturing industries. On the other hand, trade, finance, government and the other service industries yielded close to 3 per cent *higher* income than in 1953. This has been the experience in the other moderate Twentieth Century recessions as well.

Another consequence of the concentration in serv-



**Madison's major "export" earners — state and Federal government activities**

ices is that Madisonians on the average have incomes which are moderately lower than in Midwestern cities more concentrated in manufacturing. Average annual payrolls per employee are lower than in Flint or Fort Wayne, for instance. Earnings per employee in manufacturing, especially the metals industries in which most Midwest cities are heavily represented, are as much as two-thirds higher than in trade and service establishments. Even the fact that Madison's government employees, due to the nature of their jobs, are high paid as government workers go fails to offset the absence of substantial blocks of high wage automobile and machinery workers. On the other hand, the greater stability of employment in Madison is an offset to the somewhat lower levels of earnings. Moreover, it is likely that the locally produced goods and services Madisonians buy are slightly less expensive than in cities with higher wage levels. On balance, Madison's people probably enjoy a standard of living at least as high as in other Midwest cities.

# Activities in 1955

**E**xpanding economic activity provided the major theme of the 1955 business picture. Financial developments were highlighted by the increased demand for credit from the consumer, business and government sectors, combined with a gradual shift in monetary policy from active ease to one of restraint.

## Assets and liabilities

Businessmen, investors, financial analysts and, in fact, everyone else interested in business developments look to year-end profit and loss statements and balance sheets for the insight these financial reports provide into the performance and internal management policies of the individual concerns.

Such inferences, however, can be made to only a limited extent from the financial accounts of a Federal Reserve Bank, for its annual statements differ, in both content and significance, from the reports of a typical American business firm. The twelve Reserve Banks, together with the Board of Governors in Washington, comprise the nation's central bank and monetary authority. As a consequence, the major items on a Reserve Bank's statements reflect either the multitude of transactions of consumers, businesses and financial institutions within and without the borders of its District or the policy decisions on credit control made by the Federal Reserve System as a whole. It is in light of these broad developments in the economy in general that the financial reports of the individual Reserve Banks are best viewed.

The grand total of *gold certificates* held by the twelve Reserve Banks, for example, is determined by changes in the country's gold stock—the Treasury generally issuing or redeeming certificates in an amount equal to its purchases or sales of the yellow metal. This year, U.S. gold holdings have shown lit-

tle change. For one thing, gold has lost some of its glitter in the eyes of foreign central banks. Instead, they have put an increasing portion of their accumulating dollar balances into earning assets—mainly short-term Treasury securities and bankers' acceptances. In the first nine months of the year, foreign nations added about 1.2 billion to their dollar holdings, only 50 million of which was used to purchase gold.

The distribution of the total System holdings of gold certificates among the twelve Banks is continually being altered by the net effect of the payment flows for goods, services and financial claims that move back and forth across District borders. When the receipts from "exports" of a Reserve District and from the inflow of investment funds, interest and dividend payments into the District exceed the combined total of outlays for "imported" goods and services and for capital investment outside the area, the net effect will in general be to boost that Reserve Bank's holdings of gold certificates.

Over the course of the year, the gold certificate holdings of the Chicago Bank rose just slightly as a result of these financial transactions. The excess of receipts from other Districts produced an increase of 78 million, or but 2 per cent from the 3.7 billion dollar level at the beginning of 1955.

In fact, as the accompanying chart shows, the gold certificates held by the Federal Reserve Bank of



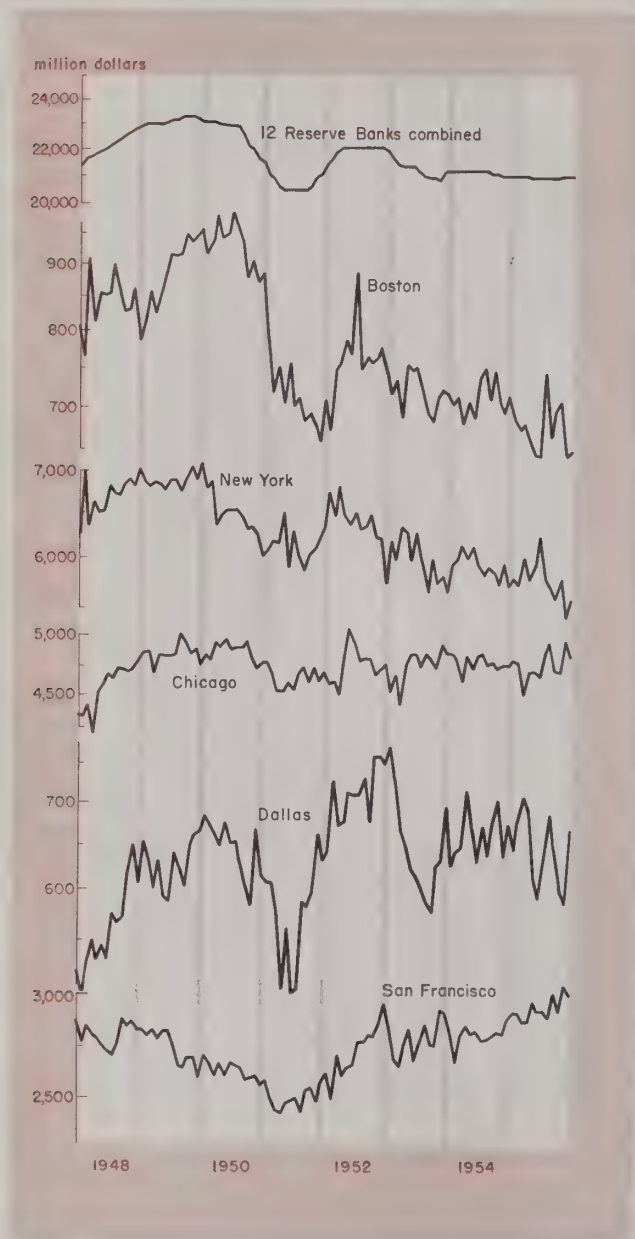
## FEDERAL RESERVE BANK OF CHICAGO

## COMPARATIVE STATEMENT OF CONDITION

	December 31, 1955	December 31, 1954
<b>Assets</b>		
Gold certificates:		
Redemption fund for Federal Reserve notes . . . . .	155,100,115	144,007,835
Other holdings . . . . .	3,657,306,860	3,581,138,952
Total gold certificates . . . . .	3,812,406,975	3,725,146,787
Federal Reserve notes of other banks . . . . .	32,502,000	20,411,000
Other cash . . . . .	50,521,408	62,994,384
Total cash . . . . .	3,895,430,384	3,808,552,171
Discounts and advances:		
Member banks . . . . .	3,200,000	0
Other . . . . .	140,000	18,533,333
Total discounts and advances . . . . .	3,340,000	18,533,333
U.S. Government securities . . . . .	4,254,459,000	4,350,934,000
Total loans and securities . . . . .	4,257,799,000	4,369,467,333
Uncollected cash items . . . . .	900,963,709	638,551,318
Bank premises . . . . .	6,071,276	6,280,546
Other assets . . . . .	29,090,920	25,248,763
Total assets . . . . .	9,089,355,291	8,848,100,131
<b>Liabilities</b>		
Federal Reserve notes in circulation . . . . .	5,190,330,150	5,064,808,875
Deposits:		
Member bank—reserve accounts . . . . .	2,987,409,714	2,979,096,001
U.S. Treasurer—general account . . . . .	40,009,268	97,480,973
Foreign . . . . .	54,040,000	66,998,000
Other . . . . .	16,540,033	15,350,338
Total deposits . . . . .	3,097,999,015	3,158,925,312
Deferred availability cash items . . . . .	640,400,521	471,408,427
Other liabilities . . . . .	2,480,427	2,318,473
Total liabilities . . . . .	8,931,210,113	8,697,461,087
<b>Capital accounts</b>		
Capital paid in . . . . .	40,487,300	38,353,850
Surplus (Section 7) . . . . .	101,893,599	96,565,887
Surplus (Section 13b) . . . . .	1,429,384	1,429,384
Other capital accounts . . . . .	14,334,895	14,289,923
Total liabilities and capital accounts . . . . .	9,089,355,291	8,848,100,131

Chicago have been markedly stable for the past several years, changing relatively little from year to year when compared both with the movements in gold certificates of the twelve Reserve Banks combined and with the experience of individual Banks. Moreover, the amplitude of short-run fluctuations is noticeably smaller for Chicago than those of the other

### Varying trends in adjusted gold certificate holdings of individual Reserve Banks, 1948-55



Note: End-of-month data on gold certificate holdings adjusted for effects of changes since January 1, 1948, in participation of individual Reserve Banks in the System Open Market Account. The cumulated adjustments for the period ending December 1955, in million dollars, are: Boston, -368; New York, +216; Chicago, +1,008; Dallas, -143; San Francisco, +420.

Reserve Banks charted. This reflects the persistent near-balance in payments into and out of the heartland of the nation.

In addition to the rise in holdings of gold certificates due to the net inflow of funds in 1955, the Chicago Bank received 9 million in certificates in exchange for U.S. securities relinquished in the annual reallocation of the System's Government portfolio. Once every year the Federal Reserve's holdings of U.S. issues are redistributed among the twelve Banks in proportion to the total assets of each Bank over a year's period. In 1955, the Chicago Bank's share of Federal Reserve holdings of Government securities was reduced from 17.4818 to 17.4427 per cent, resulting in a 9 million cut in its portfolio and an equivalent increase in gold certificates.

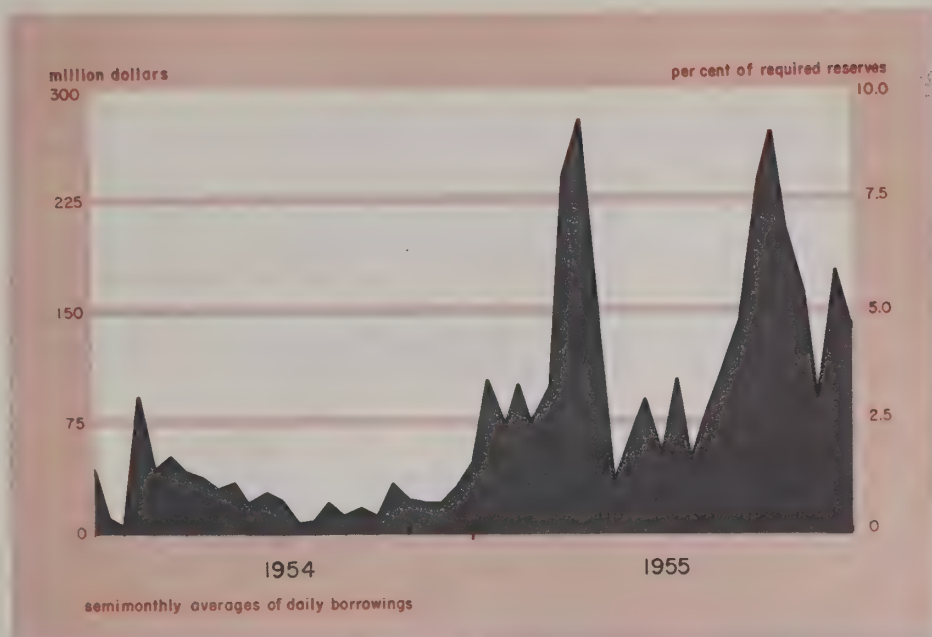
While the yearly change in "participation ratios" reapportions *System-owned securities* among the individual Banks, the combined total of such holdings is changed only as the entire Federal Reserve System, acting through the Federal Open Market Committee, engages in purchases or sales of Governments to alter the total of member bank reserves. This past year has been marked by a gradual tightening of reserve pressures. Beginning in late 1954, the Federal Reserve began to shift from a policy of active ease to one of restraint. Open market operations, together with increases in the discount rate, were used to limit the expansion in money and credit. Although the System bought securities either outright or through repurchase agreements at various times during the year to meet the seasonal and secular credit needs of the economy, the Open Market Account on balance reduced its portfolio by about 500 million dollars during the twelve months ending December 31, 1955. Government holdings of the System totaled 24.4 billion dollars on that date, compared with 24.9 billion a year earlier.

As is usual, *discounts and advances* on the books of the Chicago Bank at the close of the year were negligible. This reflects, of course, the tendency for commercial banks to attempt to repay any outstanding debts at year-end.

Many member banks, however, did make frequent trips to the Bank's discount window during 1955. As the Federal Reserve gradually shifted from a policy of active ease in December 1954 to one of restraint, more and more member banks made use of their borrowing privilege to help them over temporary periods of reserve pressure. Advances to Seventh District member banks on an average daily reserve week basis, reached a peak of over 300 million in April of this year, the highest point since



## Discounts and advances to Seventh District member banks in 1955 far above 1954 level



April 1953. The total amount of short-term reserve credit extended by the Federal Reserve Bank of Chicago to its member institutions during 1955 increased by almost 350 per cent above the 1954 level. In all, 166 member banks in this District supplemented their reserves by borrowing at some time over the course of the year.

This increase in discounts and advances came in the face of rising costs of borrowing. To restrict credit expansion, the Chicago Bank stepped up its discount rate—the rate at which it will lend to member banks—four times during 1955. It was raised from  $1\frac{1}{2}$  to  $1\frac{3}{4}$  per cent in April and then boosted by a quarter of a point in August, again in September and once more in November. In addition to diverting some potential borrowers into obtaining funds by other means, these increases served notice to the business and financial community that the Federal Reserve intended to use the weapons available to it to withstand any inflationary pressures that might build up with the rapid rise in economic activity.

The business expansion in 1955 is reflected in the increased volume of *Federal Reserve notes* outstanding at year-end. The largest liability item on the books of the Chicago Bank, its notes in the coffers of individuals, businesses and commercial banks totaled 5.2 billion on December 31, 1955, a rise of

135 million or 2 per cent since the close of last year.

This increase matches the percentage rise recorded in total Federal Reserve notes outstanding. Each Federal Reserve Bank issues or redeems its notes in response to the changes in the needs of the public and its members for currency. The 670 million dollar rise in 1955 as expanding economic activity swelled the demand for cash and coins pushed the combined note issues of the twelve Reserve Banks up to the 27 billion mark. These bills of five dollar and higher denomination account for 90 per cent of all currency in circulation.

The increase in money in circulation supplemented open market operations in limiting the rise that occurred in *member bank reserve accounts* during 1955. As a Reserve Bank issues additional currency to its members to be used either to replenish vault cash or to pay out to its customers, it customarily charges that amount against the member bank's reserve account.

The composite effect of the factors that alter reserves was to increase by 128 million the balances

## Chicago Bank accounts for more than one-sixth of Federal Reserve System assets and liabilities

	Combined total, 12 Federal Reserve Banks (billion dollars)	Per cent at Federal Reserve Bank of Chicago
<b>Assets</b>		
Gold certificates	21	19
U.S. Government securities	24	17
Discounts and advances	1	10
Other assets	6	15
	<hr/> 51	<hr/> 18
<b>Liabilities and capital accounts</b>		
Federal Reserve notes	27	19
Member bank deposits	19	17
Other liabilities	1	14
Capital accounts	5	14
	<hr/> 51	<hr/> 18

As of November 30, 1955

held by all member banks. Only 8 million accrued to the reserves of Seventh District members.

In addition to holding member bank deposits, each Federal Reserve Bank also maintains accounts for the *U.S. Treasurer* and for *foreign central banks and governments*. With but few exceptions, all Government expenditures are made from balances held at the Federal Reserve. These accounts are replenished periodically as the Treasury transfers funds accumulated in its Tax and Loan Accounts at commercial banks. Careful synchronization of these transfers with expenditures minimizes large drains on the banking system that would otherwise occur on the major tax dates.

Each member bank can be required to purchase

stock in its Reserve Bank in an amount equal to 6 per cent of its combined capital and surplus. Thus far, however, the Reserve Banks have called for only half that amount, on which they pay their members an annual dividend of 6 per cent. During 1955 *paid-in capital* of the Federal Reserve Bank of Chicago increased by over 2 million dollars. Almost all of this rise was the result of the added stock subscriptions of member banks that bolstered their own capital and surplus accounts during the year. Beyond these changes some 140 thousand dollars were received in initial stock purchases from new members and about 100 thousand dollars in stock were canceled as a result of mergers or withdrawals from membership in the Federal Reserve System.

## Earnings and expenses

Current earnings of the Federal Reserve Bank of Chicago dropped by more than 4 million dollars in 1955. At 72 million dollars, operating revenue was 6 per cent below the 1954 figure.

*Interest received on holdings of U.S. Government securities* fell sharply during this past year from 76 million in 1954 to 69 million during 1955. A drop of this magnitude seems somewhat paradoxical at first glance, for (1) 1955 was marked by an almost steady rise in the market rate of interest in which the System participated, (2) on all exchanges the new issue carried at least as high a rate as did the maturing issue and (3) the Bank's average holdings in 1955 decreased only 3 per cent from the previous year level. The big change occurred, however, not because of what took place in 1955, but rather what happened in 1954. The most significant shift was made in December of 1954, when 7 billion in 17½ per cent Government notes and 300 million of 2 per cent bonds were exchanged for an equivalent amount of 11½ per cent one-year certificates. Thus, throughout almost all of 1955, the yield on this 7.3 billion in security holdings, 30 per cent of System holdings on January 1, 1955, was at least ¾ of a percentage point less than had been earned in 1954.

The rise in *interest on discounts and advances*, on the other hand, offset in part the drop in earnings on U.S. security holdings. Receipts from Seventh District member banks for indebtedness they incurred during 1955 totaled 2.5 million dollars, a 300 per cent increase from the 633 thousand earned in the previous year. This, however, was still well under the 3.6 million recorded in 1953. The surge in interest on member bank borrowings resulted both

from the much greater use of the Bank's discount window and the rise in the rate charged to borrowing banks.

*Current expenses* of the Chicago Federal Reserve Bank showed marked stability during 1955, not only in total operating costs but also in the individual expense items. Outlays over the year were less than 200 thousand below the 20 million of current expenditures in 1954.

*Salaries* paid to Bank personnel, which account for three-fifths of total expenses, remained at virtually the 1954 level through the interplay of two counter-balancing influences. While the salary scale of all employees was raised in the last half of the year, the average number of Bank employees was reduced from 3,033 to 2,878 at the Chicago office the Detroit Branch combined. This reduction was effected in the face of an expanding volume of activity in most Bank departments.

The most significant change in operating outlays during 1955 was recorded in the *cost of Federal Reserve currency*. The 270 thousand dollar drop in such expenses reflects a decrease of 27 per cent from year-ago levels in the number of "7-G" Federal Reserve notes printed in 1955.

There are a number of services that Federal Reserve Banks perform for the U.S. Treasury and for which the Reserve Banks are reimbursed. The decline of 6 per cent in the *reimbursement for fiscal agency and other expenses* during 1955 can be attributed for the most part to the decrease in the volume of such activities.

It has been the practice, in recent years, for the Federal Reserve Banks to return the bulk of their net



## FEDERAL RESERVE BANK OF CHICAGO

## COMPARATIVE STATEMENT OF EARNINGS AND EXPENSES

Current earnings:	1955	1954
Discounts and advances . . . . .	2,507,344	632,661
U.S. Government securities . . . . .	69,427,125	75,691,706
All other . . . . .	156,690	14,920
Total current earnings . . . . .	72,091,159	76,339,287
Current expenses:		
Salaries . . . . .	11,518,747	11,573,199
Retirement contributions . . . . .	1,086,488	1,083,646
Postage and expressage . . . . .	2,165,054	2,196,737
Provision and maintenance of facilities . . . . .	2,101,606	1,944,292
Assessment for expenses of Board of Governors . . . . .	585,600	578,800
Cost of Federal Reserve currency . . . . .	810,535	1,077,102
All other . . . . .	1,513,675	1,496,401
Total . . . . .	19,781,705	19,950,177
Less reimbursement for certain fiscal agency and other expenses . . . . .	3,381,061	3,589,960
Current net expenses . . . . .	16,400,644	16,360,217
Current net earnings . . . . .	55,690,515	59,979,070
Additions to current net earnings:		
Profits on sales of U.S. Government securities (net) . . . . .	7	72,999
All other . . . . .	9,047	11,578
Total additions . . . . .	9,054	84,577
Deductions from current net earnings:		
Reserves for contingencies . . . . .	44,972	49,792
All other . . . . .	20,907	111,433
Total deductions . . . . .	65,879	161,225
Net earnings . . . . .	55,633,690	59,902,422
Paid U.S. Treasury (interest on F. R. notes) . . . . .	47,949,746	51,963,901
Dividends . . . . .	2,356,233	2,164,551
Transferred to Surplus (Section 7) . . . . .	5,327,711	5,773,970
<b>Surplus Account (Section 7)</b>		
Surplus January 1 . . . . .	96,565,888	90,791,918
Transferred to Surplus—as above . . . . .	5,327,711	5,773,970
Surplus December 31 . . . . .	101,893,599	96,565,888

earnings to the U. S. Treasury. This procedure is in keeping with the intent of Congress as expressed in the Federal Reserve Act and reflects the public interest in which Federal Reserve functions are undertaken. Since 1947, this payment has been accomplished by means of an interest charge on outstanding Federal Reserve notes of each Bank, levied by the Board of Governors and paid to the Treasury. In 1955, the Chicago Bank's payment to the Treasury was nearly 48 million, equal to 86 per cent of the Bank's net earnings.

Each year since 1916, the Federal Reserve Bank of Chicago has paid dividends on its common stock held by the member banks of the Seventh Federal

Reserve District. By terms of the Federal Reserve Act, the annual dividend is cumulative and is set at 6 per cent of the paid-in capital stock. In 1955, such dividend payments aggregated nearly 2.4 million dollars, 9 per cent more than in 1954. They were made to over a thousand member banks throughout the five Midwest states which comprise the Seventh District.

After all such payments were effected, the remaining earnings—5.3 million—were transferred to surplus as required by Section 7 of the Federal Reserve Act. This transfer brought the total surplus (Section 7) of the Bank to a new high of 101.9 million.

## **Volume of operations**

Many departments of the Federal Reserve Bank of Chicago registered all-time highs in their volume of operations during 1955, while others showed declines from year-ago levels. The major gains came in collection and cash services performed by the Bank for its members; the decreases in activities were in those functions that are closely related to the volume of Treasury security operations.

The improvement in business conditions in 1955 played a big role in increasing the volume of some operations at the Chicago office and the Detroit Branch. In fact, the greater relative gains at the Detroit Branch, which serves the Chicago Bank's 190 members in Michigan, reflects in part the exceptional expansion in economic activity in the Wolverine State during the past year, due for the most part to the record level of production in the automotive industry. During the first eleven months of 1955 check clearings at Michigan banks were 22 per cent above the year-ago figure, compared with a rise of only 10 per cent in the remainder of the District.

Activity at the Detroit Branch also reflects the increased reliance that Michigan member banks have placed on it during 1955. While nominally the area served by the Detroit office was expanded at the start of 1954 to include the entire lower peninsula of Michigan, it was several months before all the members in Michigan switched from using the facilities in Chicago to those of Detroit. The result of this has been to boost the 1955 percentage change from 1954 in Detroit activity and to lower the relative comparison for the volume of Chicago operations.

### **Collections**

A large increase in operations in 1955 was

registered in the amount of checks that member banks and other Reserve offices deposited with the Chicago Bank. The job of sorting and routing the incoming checks keeps the Bank's check clearing installation on the job 24 hours a day, six days a week. About 40 per cent of the total of 2,878 employees of the Bank are part of the biggest check processing operation of its type in the world. The combined value of commercial checks handled by the Chicago and Detroit offices in 1955 rose by 9 per cent to almost 170 billion dollars.

### **Cash operations**

The expanded level of economic activity in 1955 is clearly reflected in the increased volume of operations of the Cash Department during the past year. Major gains were recorded in the handling of coin. While the number of bills paid out to member banks rose by only 4 per cent, the volume of coin supplied to banks throughout the District during 1955 was 16 per cent above the year-ago level.

Here too, the difference between 1955 and 1954 activity was most striking at the Detroit Branch. On the request of member banks, the Detroit office distributed 38 per cent more coins this year than they did in 1954, an increase in dollar terms of more than 25 per cent. The dollar value of currency shipments from Detroit rose by 14 per cent, making up 60 per cent of the District gain.

### **Safekeeping of securities**

Although the dollar volume of Government securities held by the Chicago Bank for its members declined by 11 per cent over the course of the year, the 6.4 billion on safekeeping at the end of 1955



# FEDERAL RESERVE BANK OF CHICAGO

## Collections made through the Federal Reserve Bank

	Chicago	1955 Detroit Branch	Total	Per cent change from 1954		
				Chicago	Detroit Branch	Total
Dollar volume (millions)						
Commercial bank checks.....	135,520	30,878	166,398	7	17	9
Government checks <sup>1</sup> .....	13,342	2,386	15,728	-1	-33	-8
Other items .....	1,207	348	1,555	-7	52	2
Pieces (millions)						
Commercial bank checks.....	344	79	423	5	19	8
Government checks <sup>1</sup> .....	109	16	125	1	3	1
Other items .....	1	*	1	3	8	4

\*Less than 500,000 or less than 0.5 per cent.  
<sup>1</sup>Including Postal Money Orders.

## Cash department operations

	Chicago	1955 Detroit Branch	Total	Per cent change from 1954		
				Chicago	Detroit Branch	Total
Dollar volume (millions)						
Currency paid to banks <sup>1</sup> .....	3,611	1,336	4,947	3	14	6
Coin paid to banks <sup>1</sup> .....	140	26	166	15	27	16
Coin wrapped .....	93	15	108	10	25	11
Unfit currency withdrawn from circulation.....	707	244	951	-8	5	-4
Pieces (millions)						
Currency paid to banks <sup>1</sup> .....	613	203	816	3	9	4
Coin paid to banks <sup>1</sup> .....	1,408	309	1,717	12	38	16
Coin wrapped .....	998	173	1,171	4	21	6
Unfit currency withdrawn from circulation .....	180	55	235	-2	12	1

<sup>1</sup>Excluding other Federal Reserve Banks.

## Safekeeping of securities

	Chicago	1955 Detroit Branch	Total	Per cent change from 1954		
				Chicago	Detroit Branch	Total
Dollar volume (millions)						
Securities received .....	8,913	4,612	13,525	-33	17	-22
Securities released .....	9,743	4,553	14,296	-24	20	-14
Coupons detached .....	142	25	167	20	28	22
Securities held as of December 31 .....	5,218	1,214	6,432	-14	5	-11
Pieces (thousands)						
Securities received.....	308	82	390	-19	-19	-19
Securities released.....	307	89	396	-7	10	-3
Coupons detached.....	1,458	234	1,692	8	13	9
Securities held as of December 31 .....	740	121	861	2	2	2

represented a somewhat increased share of total Governments owned by Seventh District member banks. More than two-thirds of members' holdings of U.S. securities are kept in the Bank's vaults at Chicago or Detroit. In addition to providing this safe-keeping service free of charge, the Bank also makes the collection on interest coupons of the bonds, notes and certificates it holds for the members.

The reduced level of activity in member banks' deposits to and withdrawals from safekeeping at Chicago and Detroit combined is due mainly to the reduced volume of Treasury financing during 1955. Exchange offerings were 12 billion below the 1954 level, a drop of 25 per cent and were only slightly offset by a 2 billion dollar rise in cash issues.

Although total activity dropped, the volume of operations at Detroit showed a substantial increase. This in part reflects the fact that during 1955 Government holdings of Michigan members dropped by only 3 per cent, compared with a decrease of about 14 per cent at other District banks members.

### Fiscal agency services

The Federal Reserve System, in its capacity as

fiscal agent for the Treasury handles the issuing, exchange and redemption of all United States securities. The decline in Treasury operations during the past year was the major reason for the drop in the volume of servicing activity on marketable securities in 1955.

The amount of savings bonds handled, however, advanced from the 1954 levels. While the proportionate increase in dollar volume of redemptions was more than two times the rise in new issues, the maturity value of new bonds still exceeded the amount cashed in during 1955.

The figures on redemptions indicate that more and more of the large bonds are being turned in. During 1955, the number of bonds redeemed dropped by 1 per cent, whereas the dollar value of these redemptions increased by 10 per cent.

Federal taxes paid through the Chicago Bank rose considerably in 1955. Of the gain of 700 million, 600 million represented increases in withholding and Social Security taxes, almost all of the remaining being in added excise tax collections. Railroad Retirement receipts remained virtually unchanged from their 1954 level.

## Services to the Treasury Department

	Chicago	1955 Detroit Branch	Total	Per cent change from 1954		
				Chicago	Detroit Branch	Total
<b>Handling of marketable securities</b>						
Dollar volume (millions)						
New issues at par value.....	11,905	3,289	15,194	— 18	85	— 7
Redemptions at maturity value.....	10,959	2,298	13,257	— 20	27	— 14
Exchanges and transfers.....	15,630	5,865	21,495	— 24	41	— 13
Pieces (thousands)						
New issues at par value.....	180	21	201	— 22	— 6	— 21
Redemptions at maturity value.....	300	35	335	— 6	0	— 6
Exchanges and transfers.....	333	36	369	— 5	21	— 3
<b>Handling of savings bonds</b>						
Dollar volume (millions)						
New issues at maturity value.....	1,345	441	1,786	5	2	4
Redemptions at redemption value*.....	1,061	316	1,377	12	6	10
Pieces (thousands)						
New issues.....	10,736	6,442	17,178	2	3	3
Redemptions*.....	10,791	6,140	16,931	— 1	— 2	— 1
<b>Handling of Federal tax receipts</b>						
Dollar volume (millions).....	5,025		5,025	15		15
Number (thousands).....	1,354		1,354	24		24

\*Includes Armed Forces Leave Bonds.



### Changes in membership

On December 31, 1955, the Federal Reserve Bank of Chicago numbered 1,025 commercial banks among its members.

During the year fourteen state and national banks joined the ranks of members, while four banks were absorbed by another member, three banks were voluntarily liquidated and one withdrew from System membership. The fourteen new members included seven state banks:

Cerro Gordo, Illinois  
State Bank of Cerro Gordo

Maple Park, Illinois  
First State Bank of Maple Park

Park Ridge, Illinois  
Citizens State Bank of Park Ridge

Cedar Rapids, Iowa  
Peoples Bank and Trust Company

Cheboygan, Michigan  
The Cheboygan State Savings Bank

Grayling, Michigan  
Grayling State Savings Bank

Wayne, Michigan  
Wayne Bank

and seven national banks:

Chicago, Illinois  
Consumers National Bank of Chicago

Downers Grove, Illinois  
Citizens National Bank of Downers Grove  
Downers Grove National Bank

Fisher, Illinois  
The Fisher National Bank

Des Moines, Iowa  
National Bank of Des Moines

East Lansing, Michigan  
First National Bank of East Lansing

St. Clair Shores, Michigan  
St. Clair Shores National Bank

Of these seven, six were newly organized banks and one represents a nonmember state bank that was converted into a national bank during the year.

### Changes in personnel

During 1955 the following promotions and appointments were announced at the Federal Reserve Bank of Chicago and the Detroit Branch:

Arthur M. Gustavson, to Vice President  
Clarence T. Laibly, to Vice President  
Harold J. Newman, to Vice President  
Edward A. Heath, to Assistant Vice President and Assistant Secretary  
Carl E. Bierbauer, to Assistant Cashier  
William O. Hume, to Assistant Cashier  
Fred A. Dons, to Assistant General Auditor

At the close of the year Mr. Edward E. Brown, Chairman of the Board, The First National Bank of Chicago, retired as member and President of the Federal Advisory Council. Mr. Homer J. Livingston, President, The First National Bank of Chicago, was elected to succeed Mr. Brown as the Council member representing the Seventh Federal Reserve District.

December of this year marked the expiration of the term of Mr. John S. Coleman, President, Burroughs Corporation, as Chairman of the Board of Directors of the Federal Reserve Bank of Chicago. Mr. Bert R. Prall, President, Butler Brothers, and formerly Deputy Chairman of the Bank, was appointed to succeed Mr. Coleman, and Mr. Carlos E. Allen, Jr., President, Campbell, Wyant and Cannon Foundry Company, was appointed as a member of the Board of Directors and Deputy Chairman.

The following officers, each concluding a long career of service to the Bank, entered retirement during 1955:

Walter A. Hopkins, Vice President  
Louis G. Meyer, Vice President  
Alfred T. Sihler, Vice President

In addition, the Bank through death lost the services of Miss Kathryn E. Lee, Assistant Cashier. Miss Lee, Mr. Hopkins and Mr. Meyer each were associated with the Bank for more than thirty years. Nine employees with similarly long records of service were retired during the year:

William C. Beckwith  
Henry G. Eckert  
Charles E. Fitzsimons  
Marguerite G. Jeffers  
Esther M. Johnson  
William F. Kelley  
Martin F. Peterson  
Belle B. Williams  
John Zwierzynski

The Bank is grateful for these many years of devotion to duty and acknowledges the contribution which such loyalty has rendered to the discharge of Federal Reserve Bank responsibilities.

FEDERAL RESERVE BANK OF CHICAGO

**OFFICERS**

**CLIFFORD S. YOUNG**

President

**ERNEST C. HARRIS**, First Vice President

**NEIL B. DAWES**, Vice President and Secretary

**WILFORD R. DIERCKS**, Vice President

**ARTHUR M. GUSTAVSON**, Vice President

**CLARENCE T. LAIBLY**, Vice President

**GEORGE W. MITCHELL**, Vice President

**HAROLD J. NEWMAN**, Vice President

**ARTHUR L. OLSON**, Vice President

**RUSSEL A. SWANEY**, Vice President

**WILLIAM W. TURNER**, Vice President

**LAURENCE H. JONES**, Cashier

**ERNEST T. BAUGHMAN**, Assistant Vice President

**PHIL C. CARROLL**, Assistant Vice President

**EDWARD A. HEATH**, Assistant Vice President  
and Assistant Secretary

**HUGH J. HELMER**, Assistant Vice President

**MARK A. LIES**, Assistant Vice President

**BRUCE L. SMYTH**, Assistant Vice President

**C. PAUL VAN ZANTE**, Assistant Vice President

**H. FRED WILSON**, Assistant Vice President

**CARL E. BIERBAUER**, Assistant Cashier

**EDWARD D. BRISTOW**, Assistant Cashier

**LE ROY A. DAVIS**, Assistant Cashier

**LE ROY W. DAWSON**, Assistant Cashier

**FRED H. GRIMM**, Assistant Cashier

**WILLIAM O. HUME**, Assistant Cashier

**HARRY S. SCHULTZ**, Assistant Cashier

**ELMER F. SHIREY**, Assistant Cashier

**GEORGE T. TUCKER**, Assistant Cashier

**PAUL C. HODGE**, General Counsel

**ORVILLE C. BARTON**, Assistant General Counsel  
and Assistant Secretary

**JOHN J. ENDRES**, General Auditor

**FRED A. DONS**, Assistant General Auditor

**CHARLES J. SCANLON**, Chief Examiner

**LELAND M. ROSS**, Assistant Chief Examiner

**DETROIT BRANCH**

**RUSSEL A. SWANEY**, Vice President

**RICHARD W. BLOOMFIELD**, Assistant Vice President

**HAROLD L. DIEHL**, Cashier

**JOSEPH J. SRP, JR.**, Assistant Cashier

**ARTHUR J. WIEGANDT**, Assistant Cashier

**GORDON W. LAMPHERE**, Assistant General Counsel



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# Annual report 1955

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